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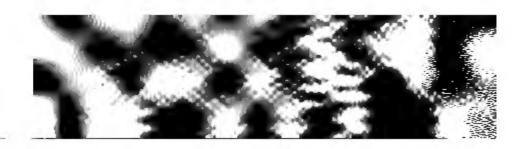
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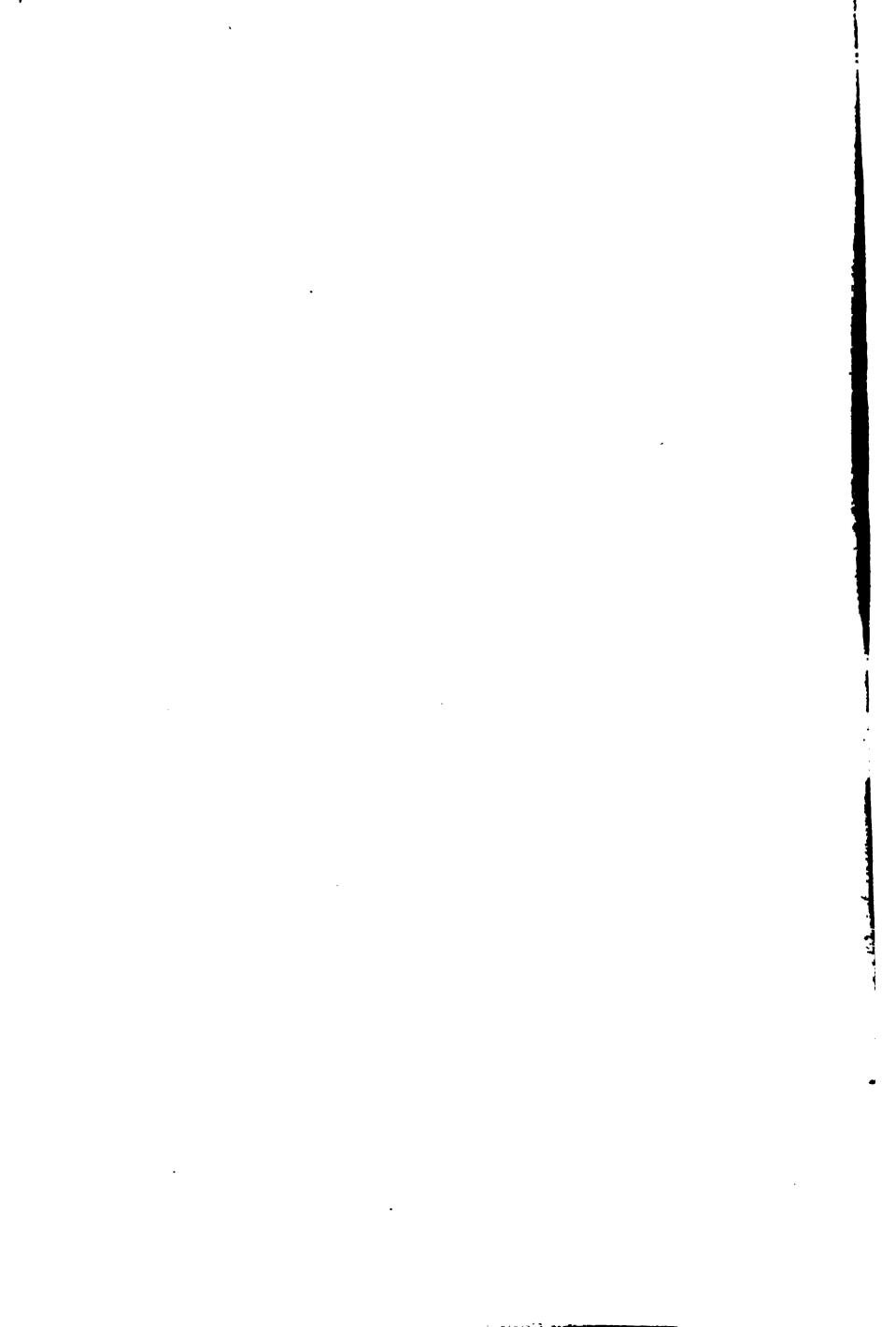


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J. G. Jack

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*A WOMAN'S HARDY GARDEN

BY HELENA RUTHERFURD ELY

WITH ILLUSTRATIONS FROM PHOTOGRAPHS TAKEN IN THE AUTHOR'S GARDEN BY

PROFESSOR C. F. CHANDLER

New York

THE MACMILLAN COMPANY

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1904

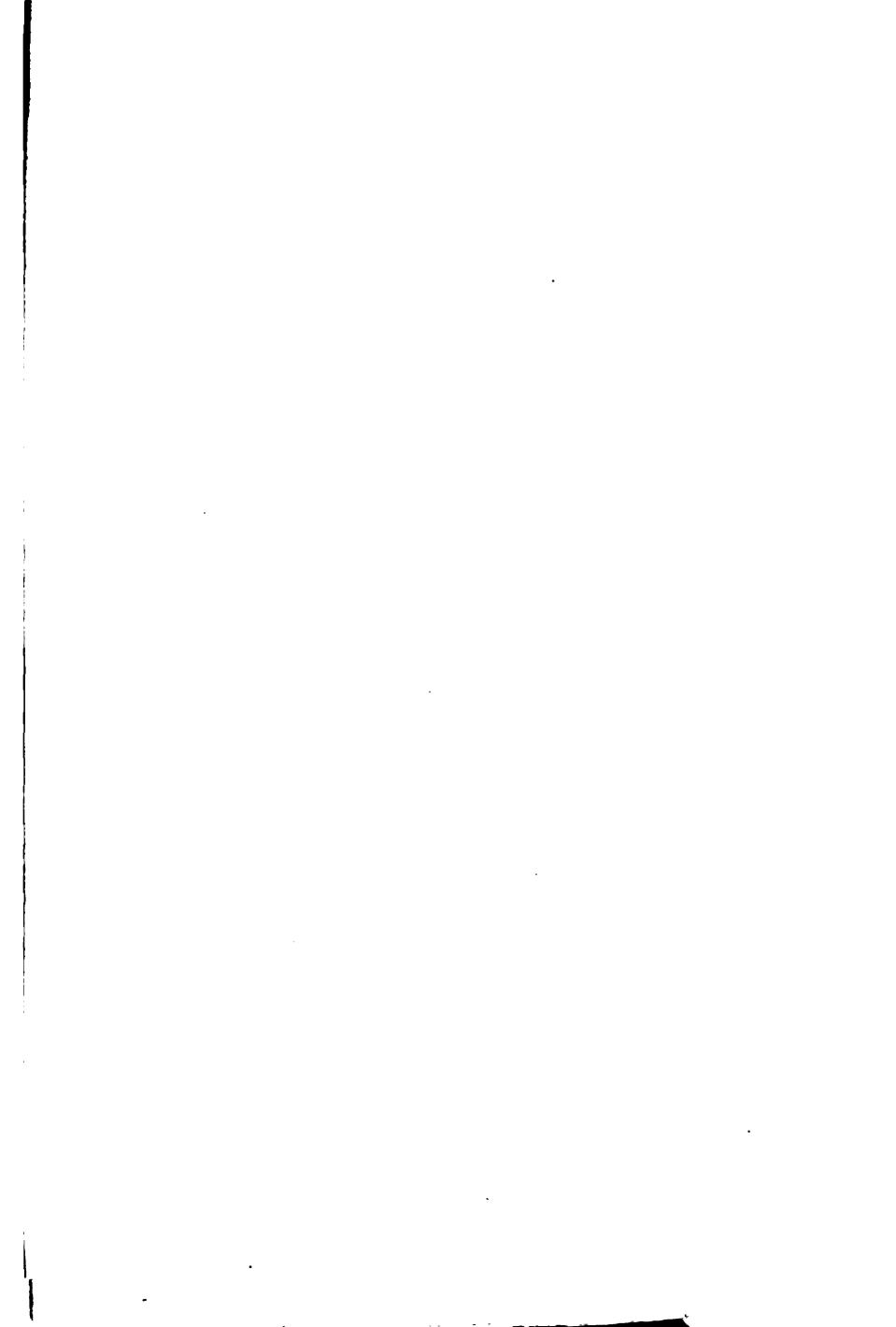
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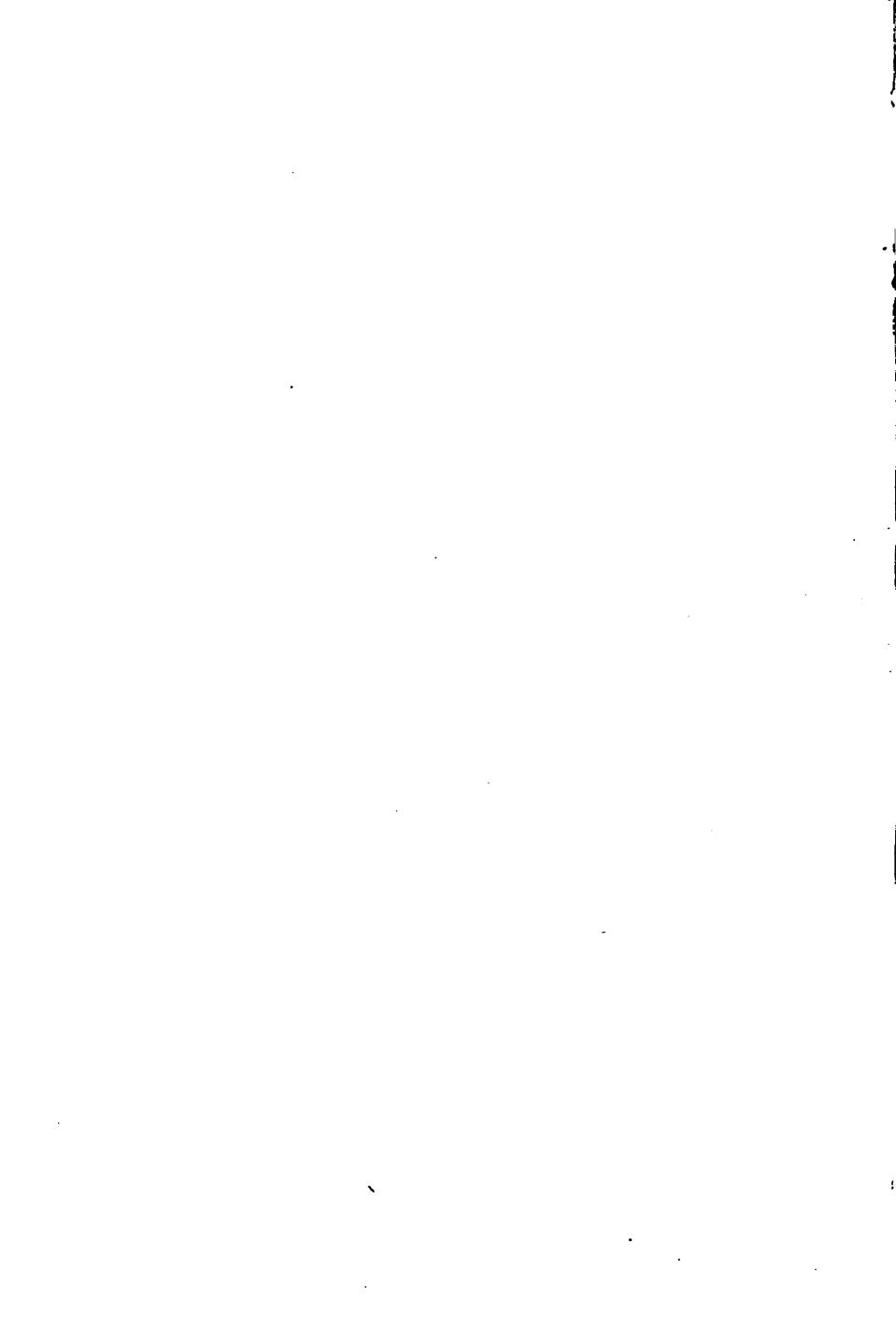
PREFACE

THIS little book is only meant to tell briefly of a few shrubs, hardy perennials, biennials and annuals of simple culture. I send it forth, hoping that my readers may find within its pages some help to plant and make their gardens grow.

Meadowburn Farm October, 1902

TABLE OF CONTENTS

CHAPTE	R.					•		PAGE
I.	Introduction		•	•	•	•	•	2
II.	Hardy Garden the Soil	denin	g	and I	Prepar •	ation	of	9
III.	Laying Out	a Gar	den	and H	Border:	s Arou	ınd	
	a House		•	•	•	•	•	17
IV.	How to Pla	nt a	Sm	all Pl	ot	•	•	35
V.	The Seed-be	ed	•	•	•	•	•	55
VI.	Planting	•	•	•	•	•	•	63
VII.	Annuals			,	•	•	•	75
VIII.	Perennials	•		•	•	•	•	91
IX.	Biennials	and	a	Few	Bedd	ling - c	out	
	Plants	•	•	•	•			115
X.	Roses .		•	•			•	123
XI.	Lilies .		•	•		•	•	137
XII.	Spring-flower	ering	Bu	llbs	•	•	•	147
XIII.	Shrubs		•	•	•	•	•	157
XIV.	Water, Wall	ks, La	ıwn	s, Box	-Edgir	ngs, Si	ın-	
	dial and	-		-	•			169
XV.	Insecticides.	Too	ol-r	oom	•	•	•	187
XVI.	Conclusion	•	•	•	•	•	•	201



					F .	acing Page
Rose arch and garden	walk	•	. 1	Frontier	iscs	
From a water-color Bartholomew	sketch	made	by (George	D.	
Garden gate, with Japa September twenty-nin	_	ourds	•	•	•	1
Broad grass walk . August twenty-fifth	•	•	•	•	•	5
A shady garden walk May thirty-first	•	•	•	•	•	12
Asters blooming in a b September fifteenth	order	•	•	•	•	16
A clump of Valerian June sixth	•	•	•	•	•	19
Rhododendron maximun	a and	Ferns	رماه ع	nor no	rth	
side of house, with A July fourth				_		23
Arch over Rose-wall	cove	ered	with	Gold	den	
Honeysuckle and Geptember fifteenth						26
Rhododendron maximun July fourth	n unde	er a c	herry	tree	•	30

			CING AGE
Vase of Delphinium (Perennial Larkspur) June twenty-first	•	•	33
Vase of Peonies	•	•	39
Lilium speciosum rubrum September fifteenth	•	•	42
Vase of Altheas	•	•	48
Planting on the edge of lawn August second	•	•	51
Asters in rows for picking August twenty-fifth	•	•	55
Foxgloves—seedlings ready for final transposers twenty-ninth	plant	ing	58
Long grass walk, with Narcissus Poeticus be in the border		ing	62
Long grass walk, with Peonies in the bound June sixth	order	•	65
Long grass walk, with Foxgloves blosson the border	_	in	67
Long grass walk, with Hydrangeas; Rucin background			78

					•	CING AGE
A single plant of Asters September tenth	•	•	•	•	•	80
Poppies growing in rows July fourteenth	•	•	•	•	•	83
A bowl of Cosmos. September twenty-ninth	•	•	•	•	•	87
A mass of Phlox; Rudber August second	ckias	in the	e back	groun	d	90
Hollyhocks in blossom July twelfth	•	•	•	•	•	94
A single plant of Delphinic June twenty-first	um (l	Perenn	ial La	rkspu	r)	97
Yuccas in blossom . July twelfth	•	•	•	•	•	103
Bed of Peonies, on edge June sixth	of la	wn	•	•	•	106
A single plant of Phlox August twenty-fifth	•	•	•	•	•	112
Vase of Canterbury Bells June twenty-first	}	•	•	•	•	115
A single plant of Fo	oxglo	ves. T	White	Swe	et.	
TT7111	•					119
Vase of Foxgloves . June fourteenth	•	•	•	•	•	122

LATE FOR MUSICATIONS

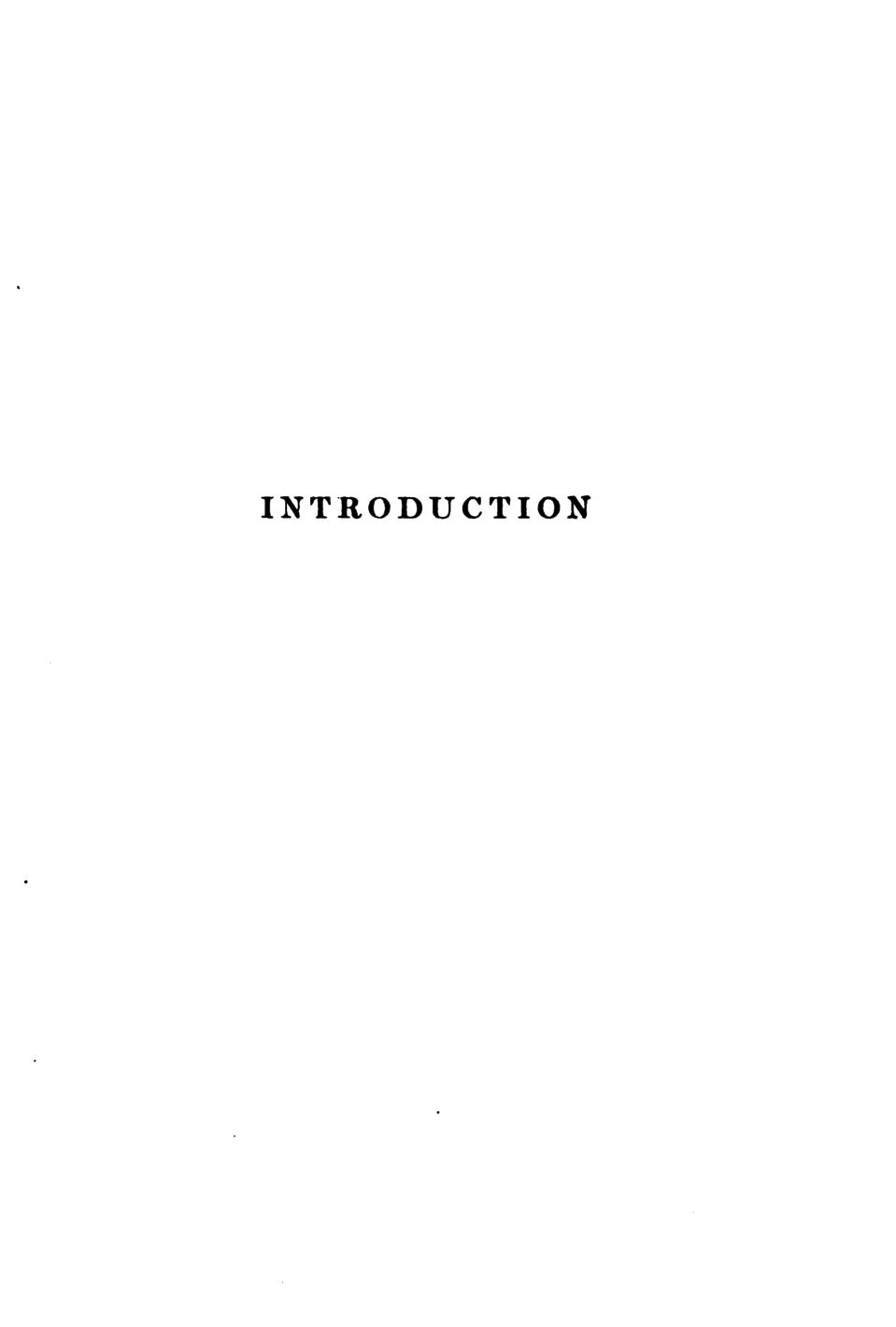
Tantan . 194 overest ville Termina and Con	FACEN
The same state	
Market on a section of the Control o	. 129
THE RESERVE THE RESERVE TO A PARTIE .	. 133
granic mini denne ar mannet ender	
meratian	. 144
neromen album and retrem	. 147
red with Japanese Gourds	. 151
agle blossoms actual size	. 154
rā	. 158
sta gr andiflora	. 161
paniculata grandiflora	. 165

								ACING PAGE
Vase	of double	Hardy	Sun	flowers	(E	<i>Ielianth</i>	us	
	<i>ltiflorus ple:</i> September fif	•	•	•	•	•	•	172
	of Monksh September th		•	•	•	•	•	176
	ial in cent August secon	_	mal	garden	l	•	•	179
	Pergola (fir August twent		r)	•	•	•	•	190
	ma (Red-H September tw			int)	•	•	•	197
_	ing in the September sin		•	•	•	•	•	204

i				
· {				
•				



Garden gate, with Japanese gourds September twenty-ninth



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	•					
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CHAPTER I

INTRODUCTION

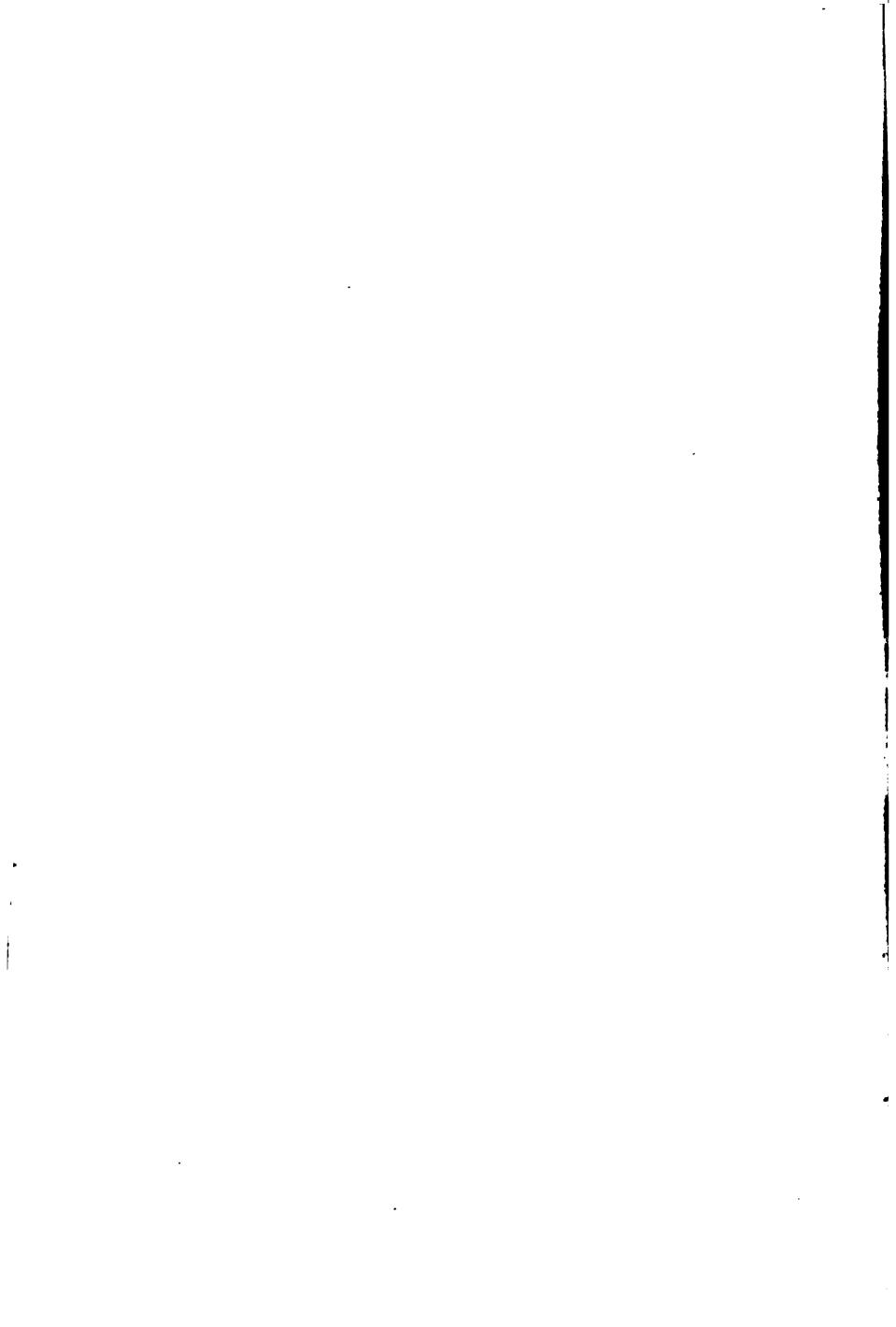
TOVE of flowers and all things green and growing is with many men and women a passion so strong that it often seems to be a sort of primal instinct, coming down through generation after generation, from the first man who was put into a garden "to dress it and to keep it." People whose lives, and those of their parents before them, have been spent in dingy tenements, and whose only garden is a rickety soap-box high up on a fire-escape, share this love, which must have a plant to tend, with those whose gardens cover acres and whose plants have been gathered from all the countries of the world. How often in summer, when called to town, and when driving through the squalid streets to the ferries or riding on the elevated road, one sees these gardens of



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J. G. Jack

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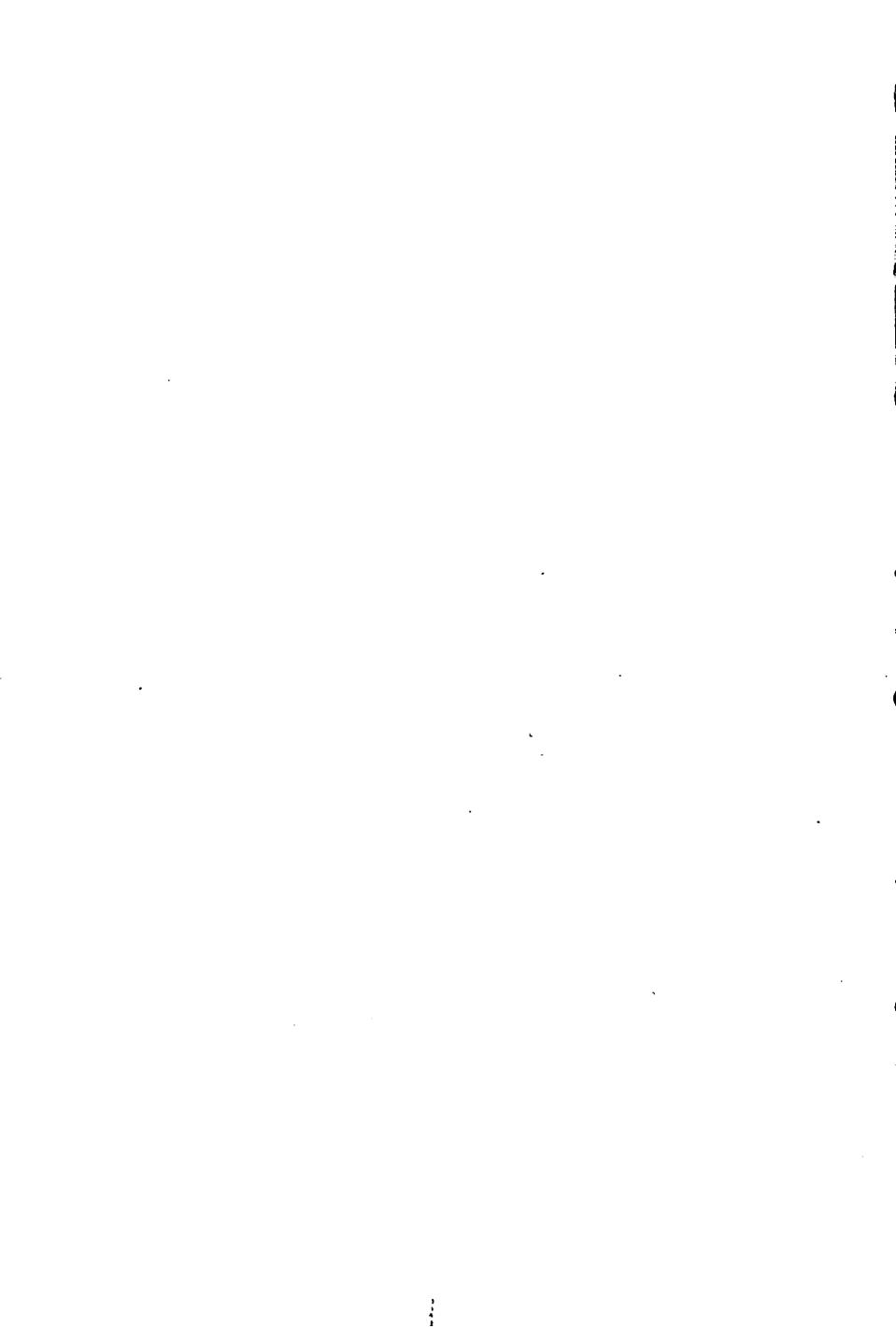
Dedication

TO THE BEST FRIEND OF MY GARDEN,
WHO, WITH HEART AND HANDS,
HAS HELPED TO MAKE IT
WHAT IT IS

A WOMAN'S HARDY GARDEN

into a big boy and girl, the garden came to the front again, and, for more than a dozen years now, it has been my joy,—joy in summer when watching the growth and bloom, and joy in winter when planning for the spring and summer's work. There is pleasure even in making lists, reading catalogues of plants and seeds, and wondering whether this year my flowers will be like the pictured ones, and always, in imagination, seeing how the sleeping plants will look when robed in fullest beauty.

HARDY GARDENING AND THE PREPARATION OF THE SOIL



CHAPTER II

HARDY GARDENING AND THE PREPARATION OF THE SOIL

T has not been all success. I have had to learn the soil and the location best suited to each plant; to know when each bloomed and which lived best together. Mine is a garden of bulbs, annuals, biennials and hardy perennials; in addition to which there are Cannas, Dahlias and Gladioli, whose roots can be stored, through the winter, in a cellar. All the rest of the garden goes gently to sleep in the autumn, is well covered up about Thanksgiving time, and slumbers quietly through the winter; until, with the first spring rains and sunny days, the plants seem fairly to bound into life again, and the neverceasing miracle of nature is repeated before our wondering eyes.

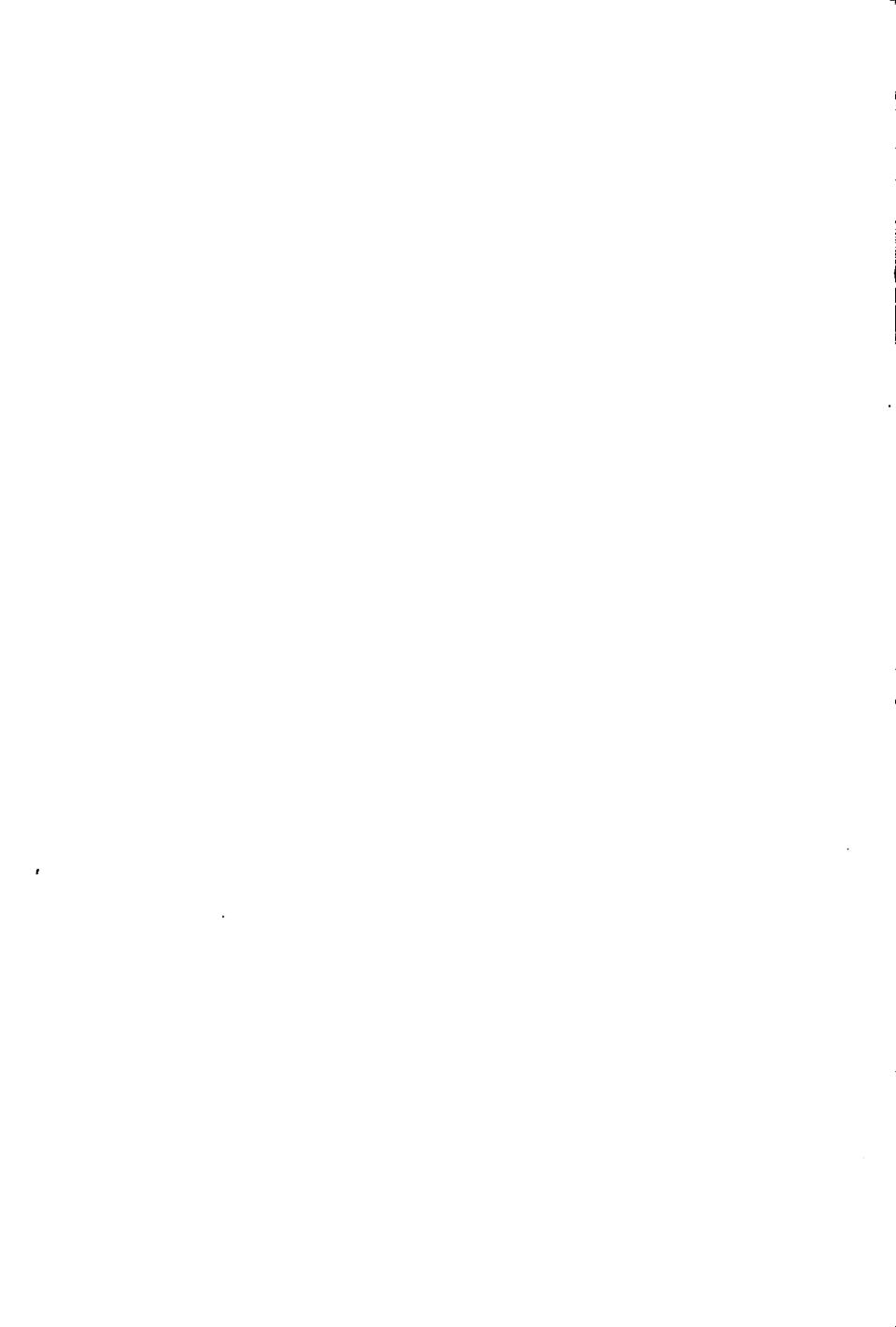
A WOMAN'S HARDY GARDEN

I have no glass on my place, not even a cold-frame or hot-bed. Everything is raised in the open ground, except the few bedding plants mentioned whose roots are stored through the winter. Therefore, mine can truly be called a hardy garden, and is the only one I know at all approaching it in size and quantity of flowers raised, where similar conditions exist.

I have observed that, with few exceptions, the least success with hardy perennials is found in the gardens of those of my friends whose gardeners are supposed to be the best, because paid the most. These men will grow wonderful Roses, Orchids, Carnations, Grapes, etc., under glass, and will often have fine displays of Rhododendrons. But to most of them the perennial or biennial plant, the old friend blossoming in the same place year after year, is an object unworthy of cultivation. Their souls rejoice in the bedding-out plant, which must be yearly renewed, and which is beautiful for so short a time, dying

A shady garden walk May thirty-first

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HARDY GARDENING

with the early frost. I was astounded last summer on visiting several fine places, where the gardeners were considered masters of their art, to see the poor planting of perennials and annuals. I recall particularly two Italian gardens, perfectly laid out by landscape gardeners, but which amounted to nothing because the planting was insufficient,—here a Phlox, there a Lily, then a Rose, with perhaps a Larkspur or a Marigold, all rigidly set out in single plants far apart, with nothing in masses, and no colour effects.

To attain success in growth, as well as in effect, plants must be so closely set that when they are developed no ground is to be seen. If so placed, their foliage shades the earth, and moisture is retained. In a border planted in this way, individual plants are far finer than those which, when grown, are six inches or a foot apart.

First of all in gardening, comes the preparation of the soil. Give the plants the food they need and plenty of water, and the

blessed sunlight will do the rest. It is wonderful what can be done with a small space, and how from April to November there can always be a mass of bloom. I know of one woman's garden, in a small country town, house and ground only covering a lot hardly fifty by one hundred feet,—where, with the help of a man to work for her one day in the week and perhaps for a week each spring and fall, she raises immense quantities of flowers, both perennials and annuals. For six months of the year she has always a dozen vases full in the house, and plenty to give More than half the time her little garden supplies flowers for the church, while others in the same village owning large places and employing several men "have really no flowers."

I remember returning once from a two weeks' trip, to find that my entire crop of Asters had been destroyed by a beetle. It was a horrid black creature about an inch long, which appeared in swarms, devoured all the

HARDY GARDENING

plants and then disappeared, touching nothing else. Such a thing had never before happened in my garden. One of the men had sprayed them with both slug-shot and kerosene emulsion to no effect,—and so no Asters. My friend with the little garden heard me bemoaning my loss, and the next day sent me, over the five intervening miles, a hamper —almost a small clothes-basket—full of the beautiful things. It quite took my breath away. I wondered how she could do it, and thought she must have given me every one she had. Yet, upon driving over in hot haste to pour out thanks and regrets, lo! there were Asters all a-blow in such quantities in her garden that it seemed as if none had been gathered.

Except by the sea-coast, our dry summers, with burning sun and, in many places, frequent absence of dew, are terribly hard on a garden; but with deep, rich soil, and plenty of water and proper care, it will yield an almost tropical growth. Therefore, when-

ever a bed or border is to be made, make it right. Unless one is willing to take the trouble properly to prepare the ground, there is no use in expecting success in gardening. I have but one rule: stake out the bed, and then dig out the entire space two feet in depth. Often stones will be found requiring the strength and labor of several men, with crowbars and levers, to remove them; often there will be rocks that require blasting. Stones and earth being all removed, put a foot of well-rotted manure in the bottom; then fill up with alternate layers, about four inches each, of the top soil, taken out of the first foot dug up, and of manure. Fill the bed or border very full, as it will sink with the disintegration of the manure. Finish off the top with three inches of soil. Then it is ready for planting. If the natural soil is stiff or clayey, put it in a heap and mix with onefourth sand, to lighten it, before returning to the bed. Thus prepared, it will retain moisture, and not pack and become hard.



LAYING OUT A GARDEN AND BORDERS AROUND THE HOUSE

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A clump of Valerian June sixth

CHAPTER III

LAYING OUT A GARDEN AND BORDERS AROUND THE HOUSE

ERPLEXITIES assail a would-be gardener on every side, from the day it is decided to start a garden. The most attractive books on the subject are English; and yet, beyond the suggestions for planting, and the designs given in the illustrations, not much help is to be derived in this latitude from following their directions. In England the climate, which is without great extremes of heat and cold, and the frequent rains, with the soft moist atmosphere, not only enable the English gardener to accomplish what would be impossible for us, but permit him to grow certain flowers out of doors that here must be housed in the winter. Daffodils and Narcissi bloom in England, near the

coast, at the end of February and early in March,—Lilies-of-the-Valley in March. Many Roses live out of doors that would perish here during our winters. Gardening operations are begun there much earlier than in this part, at least, of the United States, and many of the methods for culture differ from those employed here. In England there is excess of moisture; therefore, care in securing good drainage is essential, while here, except in low places near streams, special provision for drainage is rarely necessary. It is more important to have a deep, rich preparation of the soil, so that plants may not be dried out. A serious part of the gardener's work during the average summer consists in judicious watering of the garden.

One writer will say that this or that plant should have sun, another that it does best in the shade. One advocates a rich soil, another a light sandy soil; so that after all, in gardening, as in all else in life, experience is the best teacher, either your own or that of

others who have already been successful under similar conditions.

A garden is almost sure to be gradually increased in size, and its capacity limited only by the grounds of the owner and his pocket-book. The possibilities and capabilities of a couple of acres are great, and will give the owner unlimited pleasure and occupation.

Individuality is one of the most marked of American characteristics; hence, in making a place, whether it is big or little, the tastes and individuality of the owner will generally direct his efforts, and no hard and fast rules can be given.

In starting a garden, the first question, of course, is where to plant. If you are a beginner in the art, and the place is new and large, go to a good landscape gardener and let him give advice and make you a plan. But don't follow it; at least not at once, nor all at one time. Live there for a while, until you yourself begin to feel what you want, and where you want it. See all the gardens

and places you can, and then, when you know what you want, or think you do, start in.

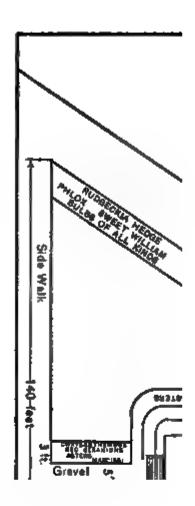
The relation of house to grounds must always be borne in mind, and simplicity in grounds should correspond with that of the house. A craze for Italian gardens is seizing upon people generally, regardless of the architecture of their houses. To my mind, an Italian garden, with its balustrades, terraces, fountains and statues, is as inappropriate for surrounding a colonial or an ordinary country house as would be a Louis XV drawing-room in a farm-house.

What is beautiful in one place becomes incongruous and ridiculous in another. Not long ago, a woman making an afternoon visit asked me to show her the gardens. Daintily balancing herself upon slippers with the highest possible heels, clad in a costume appropriate only for a fête at Newport, she strolled about. She thought it all "quite lovely" and "really, very nice," but, at least ten times, while making the tour, wondered "Why in

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the world don't you have an Italian garden?" No explanation of the lack of taste that such a garden would indicate in connection with the house, had any effect. The simple, formal gardens of a hundred years ago, with Boxedged paths, borders and regular Box-edged beds, are always beautiful, never become tiresome, and have the additional merit of being appropriate either to the fine country-place or the simple cottage.

For a small plot of ground, like the one before mentioned, the plan of which is on page 24, the matter is simple, because of the natural limitations. I love to see a house bedded, as it were, in flowers. This is particularly suitable for the usual American country house, colonial in style, or low and rambling. Make a bed perhaps four feet wide along three sides of the house,—south, east and west. Close against the house plant the vines. Every one has an individual taste in vines,—more so, perhaps, than in any other ornamental growth. If the house be of stone,



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and the climate not too severe, nothing is more beautiful than the English Ivy. It flourishes as far north as Princeton, New Jersey. I have never grown it, fearing it would be winter-killed.

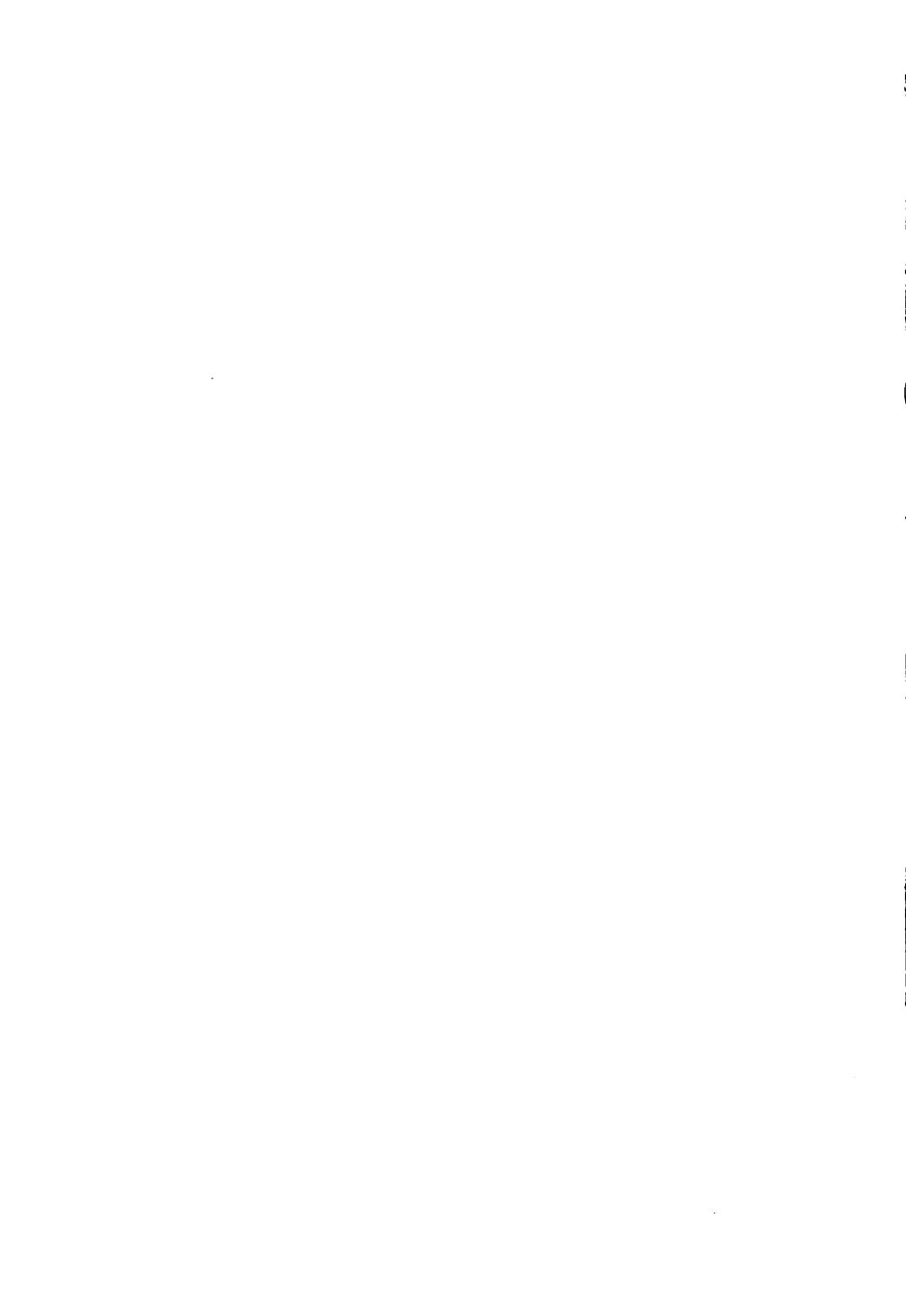
Ampelopsis Veitchii, sometimes called Boston Ivy, grows rapidly, clinging closely to the wall and turning a dark red in the autumn, and is most satisfactory.

The Virginia Creeper, and the Trumpet Creeper, with its scarlet flowers, are both beautiful, perfectly hardy, and of rapid growth. All of these vines cling to stone and wood, and, beyond a little help for the first two or three feet, need not be fastened to the house. Care must be taken to prevent the vines growing too thickly to admit sun and air to the house.

If the house be of wood, the question of repainting must be considered. Both the White and the Purple Wistaria, which can be twined about heavy wire and fastened at the eaves, Rambler Roses and Honeysuckles may

be grown. They can be laid down, to permit painting. But, if the house be of wood and well covered with vines, put off the evil day of painting until it can be deferred no longer, and then have it done early in November. Never, never permit it to be done in the spring, or before November, unless you would take the risk of killing the vines or of losing at least a season's growth. The house surrounded by my gardens is colonial, something over a hundred and fifty years old, stern and very simple. Tall locusts, towering above the roof, and vines that cover it from ground to eaves, have taken away its otherwise puritanical and somewhat uncompromising aspect. These vines are mostly the ordinary Virginia Creeper, which I had dug from the woods and planted when the first fat baby was two months old. Now their main trunks are, in places, as large as my arm. They have never been laid down. Whenever the house has been repainted, I have been constantly by, and admonished the men to

Arch over rose-walk, covered with Golden Honeysuckle and Clematic paniculata. September fifteenth



gently lift the heavy branches while painting under them, and not to paint the light tendrils. When the master-painter has remonstrated, that it was not a "good job" and took three times as long as if the vines were laid down, my reply has been, that "three times" was nothing in comparison with the years it had taken to grow them, and that stunting or killing the vines could never be a "good job."

Among the creepers are the Crimson Rambler Rose and the Honeysuckle. In three years the Roses have grown above the second-story windows.

Clematis paniculata, with its delicate foliage and mass of starry bloom in early autumn, is particularly good to plant by veranda posts in connection with other vines. It grows luxuriantly and is absolutely hardy. The large white-flowered Henryi and purple-flowered Jackmani Clematis, though of slow growth, should always have a place, either about a veranda, a summer-house or a trellis, for the sake of their beautiful flowers.

While waiting for the hardy vines to make their first year's growth, the seeds of the Japanese Morning-Glory, the Japanese Moon-Flower and Cobæa scandens may be planted. All of these will grow at least ten feet in a summer, and cover the bare places. But I would not advise sowing them among the hardy vines, except the first summer. In their luxuriance they may suffocate the Roses and Clematis. The seeds of the Moon-Flower must be soaked in hot water, and left over night, before sowing. So much for the vines about a house.

In front of the vines, and on the south side in the same bed, plant masses of Hollyhocks, from eight to twelve in a bunch, and Rudbeckia in bunches of not more than five, as they grow so large. Hollyhocks and Rudbeckias plant two feet apart; they will grow to a solid mass. In front of these, again, put a clump of Phloxes, seven in a bunch, and Larkspur, Delphinium formosum being the best. On either side of the Del-

phinium have clumps of about a dozen Lilium candidum, which bloom at the same time. Edge the border with Sweet Williams, three kinds only,—white, pink and dark scarlet.

I should not advise making all the borders around a house alike. The easterly one will be most lovely if planted with tall ferns or brakes, taken from near some stream in early April, before they begin to grow. These will become about four feet high if you get good roots and keep them wet. Plant in among them everywhere Auratum Lilies, and you will have a border that will fill your heart with joy. On the north side of the house it is not possible to have much success with vines, as they need the sun. They will grow, but not with great luxuriance. Here plant two rows of the common Rhododendron maximum, which grows in our woods. I crave pardon for calling it "common," since none that grows is more beautiful.

In front of these plant ferns of all kinds from the woods, and edge the border with

Columbines. If these Rhododendrons do not grow in your vicinity, they can be ordered from a florist. In the hills, about five miles from us, acres of them grow wild, and twice a year I send my men with wagons to dig them up. They stand transplanting perfectly if care is taken to get all the roots, which is not difficult, as they do not grow deep. Keep them quite wet for a week after planting, and never let them get very dry. A good plan is to mulch them in early June to the depth of six inches or more with the clippings of the lawn grass, or with old manure. When once well rooted, the Rhododendrons will last a lifetime. They seem to bear transplanting at any season. Some think they do best if taken when in full bloom. I have always done this in April or late October, and, of a wagon-load transplanted last October, all have lived. Many of these were like trees, quite eight feet tall and too large to be satisfactory about the house, so they were set among the evergreens in a shrubbery.

Hhododendron maximum under a Cherry tree

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In cold localities, where the thermometer in winter falls below zero, Rhododendrons should be mulched with stable litter or leaves to the depth of one foot, after the ground has frozen. They should also have some protection from the winter sun, which can be easily given them by setting evergreen boughs of any kind into the ground here and there among them. Rhododendrons are as likely to be killed by alternate freezing and thawing of the ground in winter as by summer drought.

The lovely Azalea mollis, and many beautiful varieties of imported Rhododendrons, are usually described as "hardy," but I cannot recommend them to those who live where the winters are severe. In such places their growth is very slow, and many perish.

Maidenhair, the most beautiful of the hardy ferns, is to be found in quantities in many of our woods, particularly those covering hillsides. Their favorite spot is along the edges of mountain brooks. I know such a hillside,

where Maidenhair Ferns are superb. But nothing would induce me to venture there again, since I have been told it was infested with rattlesnakes, and that the woodchoppers kill a number of them every year. This fact, too, gives me scruples about sending the men to dig them up, although it is an awful temptation.

All ferns should be transplanted late in the autumn, or very early in the spring before the fronds are started, as they are very easily broken. This is particularly the case with ferns from wet places. When planted on the east or north side of a house, the tall ones at the back, and Maidenhair and other low varieties in front, they make a beautiful bank of cool green. They must be kept moist, however, to be successful, and in dry weather require a daily soaking.

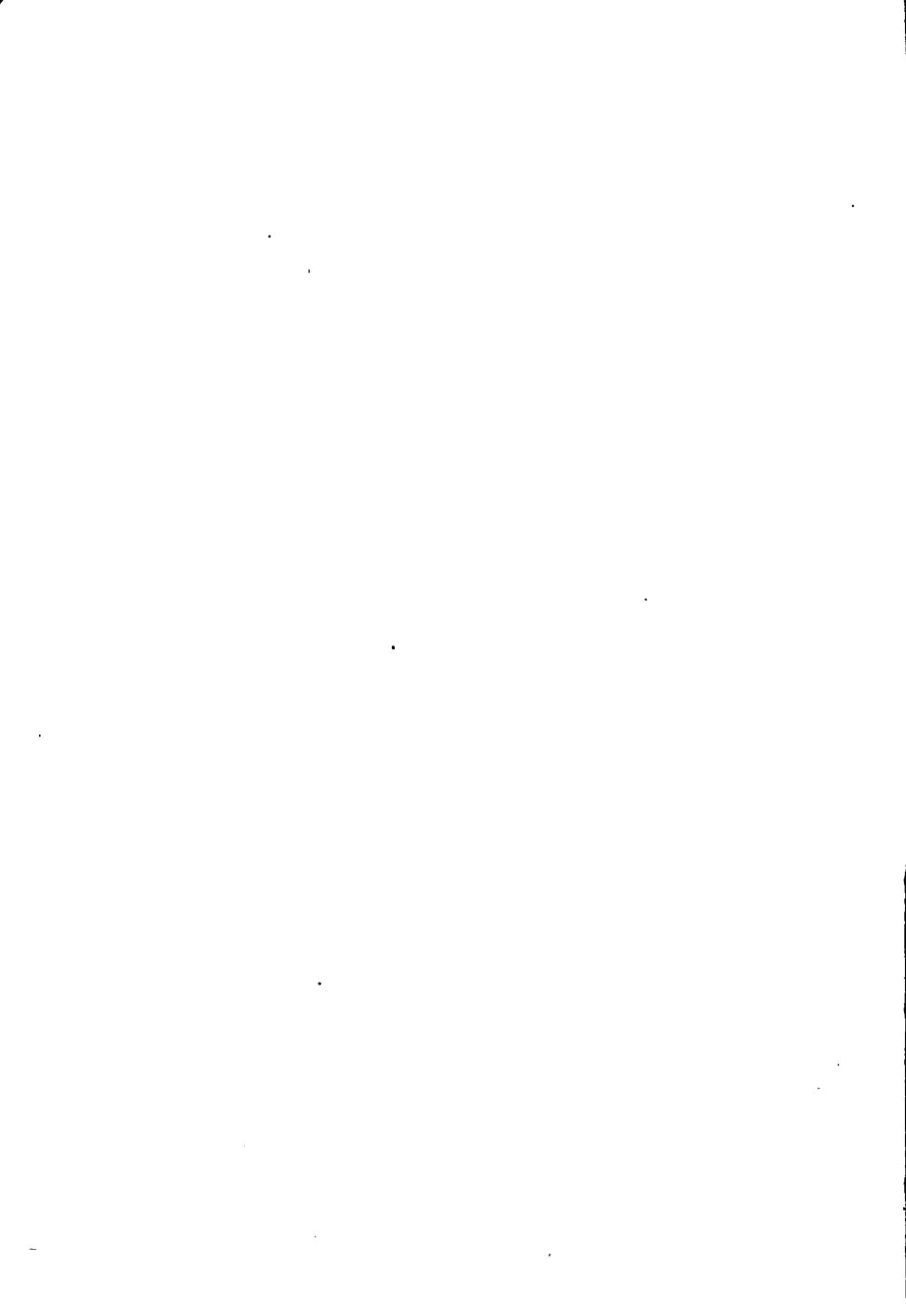
The Cardinal Flower, whose natural haunt is along the banks of streams, and whose spikes are of the most beautiful red, can also be safely transplanted, and will bloom

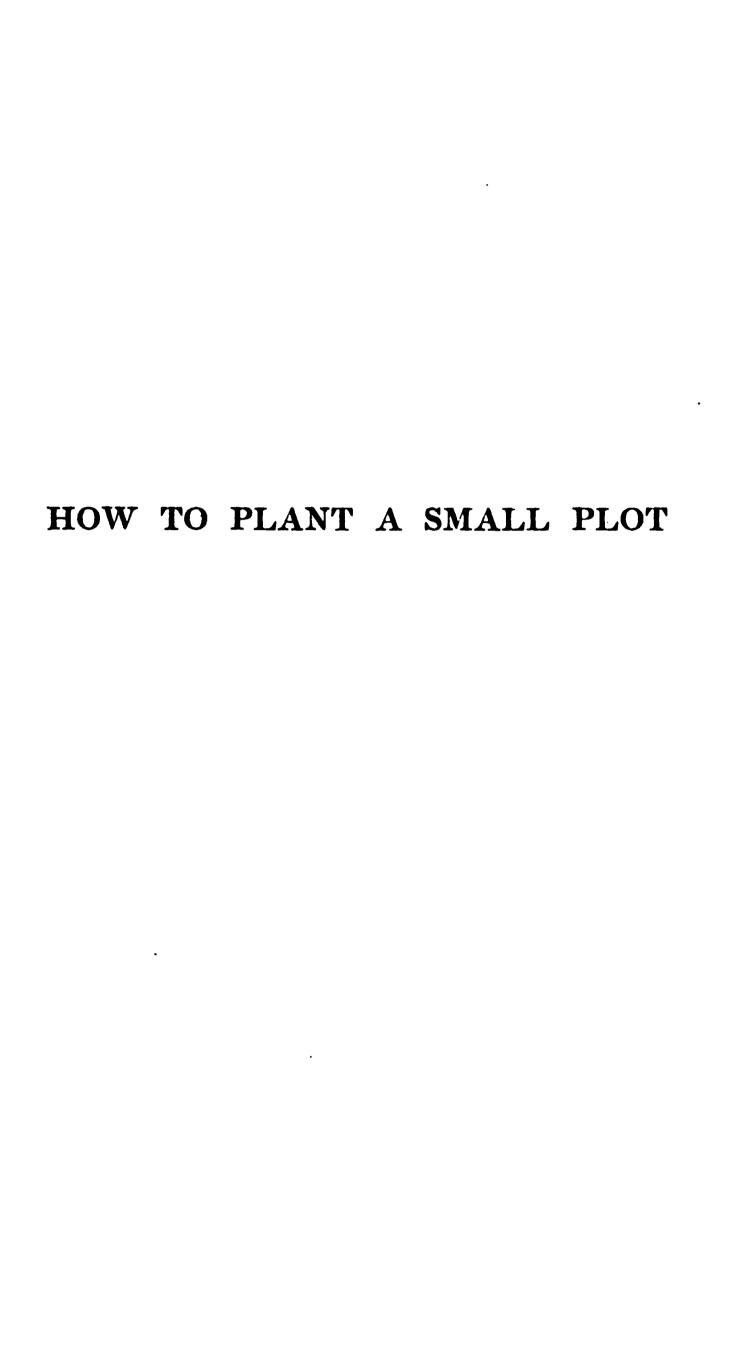
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Vase of Delphinium (Perennial Larkspur)

June twenty-first

in deep, rich soil equally well in shade or sun and will be very effective among the Ferns. About the end of November, after cutting the dead stalks, cover each plant with a piece of sod, laid grass-side down. Remove this the first of April, and the little sprouts will soon appear above the ground. Cardinal Flowers bloom for nearly a month—during the last two weeks of August and first two weeks of September.





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CHAPTER IV

HOW TO PLANT A SMALL PLOT

AM frequently surprised to hear people say, "Oh, a flower garden is very nice, but such a trouble!" I have heard this expression several times from friends who employ a number of men and have large places with extensive lawns, shrubberies and vegetable gardens, but without flowers, except, perhaps, a few annuals growing among the vegetables.

Yet no one is indifferent to the beauty of a garden, or unobservant of the improvement which even a few flowers can make around the humblest cottage. Think of the pretty thatched cottages one sees everywhere in England and France, covered to the eaves with Roses and Clematis, and surrounded by flowers growing wherever they can find root

in the tiny gardens. Yet all this is the result of only a half hour's daily care after the long day's work is done.

One should begin with a few plants—perhaps a dozen only—and the "trouble" will soon become a delight, unless one is devoid of all love for flowers.

Whenever I hear remarks on the "trouble" of a flower garden, I think of those peasant homes, and also of a little plot grown and cared for by a certain tenant farmer's wife I know. She has six children, and must cook and bake and clean for four men in addition; yet, some time every day, she finds a few minutes to tend her flowers. She has a border along the fence four by fifty feet, filled with perennials; a border across the front of her house with Phlox and Funkias, and a couple of beds with Asters, Poppies, Balsams, Portulaca and Pinks. The perennials were given her, a few at a time. She separated the roots, saved the seeds to raise others, and has been able in this way to increase her

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Vase of Peomes June sixth

borders. The seeds of the few annuals she buys do not cost more than a dollar a year. Thus, for a trifling expenditure and a short time every day, this woman makes her humble surroundings beautiful, while her soul finds an object upon which to expend its love of beauty, and her thoughts have a respite from the daily cares of life.

Many people have the mistaken idea that a flower garden, however small, is an expensive luxury, and are so convinced of this, that they never venture any attempt at gardening, and pass their lives knowing nothing of its pleasures.

Let us suppose some one is starting a suburban home in a simple way, and see how flowers can be had for many months at small cost. If one has a place in a town or village, the plot of ground not over fifty by two hundred feet, still the possibilities are great, and the owner can easily gather flowers for herself and her friends from April until mid-November. A house or cottage on such

a piece of ground generally stands back from twenty to fifty feet, with a gravel or flagged walk running to the street. If the owner be a beginner in gardening and expects to do most of the work herself, let her commence with a few plants in a small space. As the plants thrive and become beautiful, the care of them will give an added pleasure to life, and, little by little, the beds and borders can be increased.

In beginning to plant a small plot, the most natural place first is a border, say two feet wide, on either side of the walk leading from the house to the street. Have these borders dug out and made properly. Then, if the owner wishes to see them continually abloom, bulbs must be planted, to give the early spring flowers. Tulips can be had for eighty cents a hundred, Narcissus Poeticus for sixty-five cents a hundred, and Yellow Daffodils for one dollar and twenty-five cents a hundred. Hyacinths are more expensive, and cost from four dollars a hundred up. If a

hundred each of the Tulips, Narcissi, Hyacinths and Daffodils were planted they would make the borders lovely from early in April until late in May. The Daffodils will bloom first, then the Hyacinths, followed by the Narcissi, and the Tulips last, if care is taken to buy a late variety.

There should certainly be three or four Peonies in the borders,—pink, white, and dark red; good roots of these can be had for about thirty-five cents each. Once planted, they should not be disturbed for years; and, although the first season they may not yield more than two or three blossoms, in each succeeding year the flowers will increase in number. A friend told me, not long ago, that she had counted sixty blossoms upon each of several of her plants.

There should also be at least a dozen Columbines (Aquilegias) to bloom the end of May and the first of June. The roots of these can be bought for a dollar and a half a dozen, or they can be raised from seed; in

the latter case, however, they would not bloom until the second year, being perennials.

No border can be complete without Delphiniums (Larkspur). Good-sized roots of the *Delphinium formosum*, lovely dark blue, are a dollar and twenty-five cents a dozen. *Formosum Cœlistina*, the light blue variety, is two dollars and a half a dozen. Then, of course, there must be other perennials,—Phlox, at least a dozen plants in the different colours, which will cost a dollar and a half.

A few Lilies will add greatly to the beauty of the borders. Tiger Lilies, which are only sixty cents a dozen; Auratums, which can be had from eighty-five cents a dozen up, according to the size of the bulbs; Speciosum rubrum from eighty-five cents a dozen up, and Candidums, or Madonna Lilies, a dollar and a half a dozen. German Iris, a dollar and a quarter a dozen, should also have a place.

September afteenth



Excellent Gladioli can be bought for a dollar and fifty cents a hundred, and these will be most satisfactory if planted in the border about May fifteenth in groups of six to ten.

A dozen Chrysanthemums of the hardiest varieties to be obtained, and costing a dollar and a half a dozen, will, with the other plants mentioned, about fill two borders two feet wide by thirty long. It would also be well to sow the seeds of some Calendulas, Nasturtiums and Asters wherever there may be a vacant place. Or better, perhaps, sow the seeds in boxes in mid-April, and transplant to the border the early part of June. The first cost will be the only expense for these borders, except in the case of the Auratum Lilies, which will die out in about three years, and of the few flower seeds. The only care needed is to keep the borders free from weeds, to stir the soil every week, and to water after sunset in dry weather.

It will be seen, from the following list, that such borders can easily be made and planted at a cost of less than thirty dollars. This can be reduced by omitting the Hyacinths. Directions for planting are given elsewhere.

PRICE
Tulips\$0 80
Narcissi 65
Daffodils
Hyacinths 4 00
Peonies 1 40
Columbines
Delphinium Formosum 1 25
Delphinium Cælestina 2 50
Phlox 1 50
Tiger Lilies
Auratum 85
Lilium rubrum 85
Lilium candidum 1 50
Japanese Iris 1 25
Iris Germanica 1 00
Chrysanthemums 1 50
Flower seeds
Three days' work, at \$1.50 per day 4 50
Manure 1 50
Total\$29 40

After a year or two, the owner of the cottage may want to increase the flower garden, and the next place to plant is close about the house. It is to be taken for granted that the house and piazzas have the proper gutters. This is necessary, of course, for the preservation of the house, and without gutters the drip from the eaves would be such that nothing could grow directly against the house.

The bed might be three feet wide and run across the front of the house on either side of the steps. The owner would probably wish to plant vines over the porch or piazza, in case it has not already been done. The best for this purpose are mentioned elsewhere.

Should the house front the south, east or west, nearly everything can be grown; but should it face the north, nothing but Ferns and Rhododendrons would be successful on the front. Dahlias of the Cactus variety, in different colours, could be planted at the back

of the bed on one side of the steps. Get good-sized roots, plant them two feet apart. They will grow against the house like a tall hedge. If planted the third week in April quite deep, say eight inches, they will begin to bloom about the sixth of July, and continue to be covered with flowers until killed by frost. In front of the Dahlias, plant white Phlox. In front of the Phlox sow a row of Centaurea or Cornflowers, the Emperor William variety. These should be sown early in April, will begin to bloom by June tenth, and, if they are not allowed to go to seed, will blossom all summer. Sow in front of the Cornflowers, at the same time, a row of white Candytuft, of the Empress variety. This also will bloom continuously if the flowers are cut as soon as they wither. On the other side of the steps, at the back of the bed, plant Rudbeckia (Golden Glow) two feet apart. The roots should be bought and planted, preferably in October, otherwise as soon as the frost is out of the ground in the spring,

as they start very early. In front of the Rudbeckias plant Cannas—the Tarrytown, of most vivid scarlet hue, I have found the best and freest-flowering of all. The roots should be planted about May fifteenth.

On the edge of the bed, sow by April fifteenth a row of salmon-pink Zinnias, and when they are well up, thin out to six inches apart. They begin to blossom when very small, and will stand considerable frost. The expense of these beds will be trifling. Rudbeckias of the Golden Glow variety, one dollar a dozen; the Tarrytown Canna, two dollars and a half a dozen; Cactus Dahlias, two dollars a dozen; Phlox, one dollar and a half a dozen. The small quantity of flower seeds required will cost less than a dollar. A man can easily make the beds in three days. Therefore, the cost with manure will be less than fifteen dollars.

After a hard frost has killed the tops, the Dahlias, Cannas and Gladioli should be taken up, the tops cut off, the roots well

dried, and then stored in a cellar that does not freeze. The Canna and Dahlia roots will have grown so large that they can be divided and it will be found that there are enough to plant, the following spring, nearly twice the space they occupied before.

It is impossible, if successful with the borders already planned, for the owner not to wish for more garden. She sees the neighbors' gardens with newly opened eyes; flowers and their treatment become an absorbing topic of conversation, and the exchange of plants a delightful transaction.

It will be seen that the next places to plant are along the boundary lines of the property. Even if one side only be laid out at a time, a large number of plants will be required. The owner will find great pleasure in raising as many of these herself as possible. To accomplish this, somewhere at the back of the place, a seed-bed should be made, and in April the seeds of perennials and annuals sown. The border must be made by Sep-

Vase of Altheas September sixteenth •

tember the twentieth and should be at least four feet wide. Either a hedge can be placed at the back of the border, or tall-growing flowering shrubs, such as white and purple Lilacs (not the Persian), Mock Oranges (Syringa), Deutzia and Roses of Sharon (Althea). These shrubs will grow about equally high, yield an abundance of flowers, the Altheas in August, the others in May or June, and in four or five years will form a complete screen from the neighboring grounds.

In front of the shrubs perennials can be planted, taller ones at the back, lower-growing ones in front, and annuals along the edge. Such a border, if from fifty to a hundred feet in length, will be a garden by itself. The plants will do best if closely set, and every vacant space filled in June with annuals. Weeds then have little chance to grow, and a short time every day will keep such a border in order. The border can be of any width from four to twelve feet, but

when more than four feet, the front edge should be made with irregular curves to avoid a stiff appearance.

Shrubs should be set out not later than October tenth, and, as they or the hedge would be at the back of the bed, the planting of them will not interfere with the perennials that have already been transplanted from the seed-bed. Hedges are so much more beautiful than any fence that ever was built that, in towns or villages where cattle are not allowed to run at large, hedges should, wherever possible, be used in place of fences.

To prepare the ground for a hedge, make a trench eighteen inches deep, put a good layer of well-rotted manure in the bottom and fill up with earth. When the hedge is planted give it a good top-dressing of manure, and continue this top-dressing, with a little bone-meal sown on the surface of the ground, every spring.

The best and hardiest evergreen hedge is of Hemlock Spruce. Plants of this can be

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Planting on the edge of lawn August second

bought for fifteen dollars a hundred, and should be set eighteen inches apart.

The Privet is a favorite hedge in this country. It keeps green until December, and leafs out early in the spring. It is hardy and of rapid growth. Good plants are six dollars a hundred, and should be planted a foot apart. Catalogues say that if planted in rich soil one foot apart, a hedge five feet high can be grown in three seasons. Common Privet is more hardy than California Privet. Hydrangea paniculata grandiflora makes a beautiful low-growing hedge; good plants can be bought for six dollars a hundred. Berberis Thunbergii, or Barberry, makes a fine hedge, on account of its beautiful foliage and scarlet fruit. It is, however, slow-growing.

The owner of a small place should avoid the temptation to scatter flower beds about the lawn. Keep all the planting along the edges of the property and around the house, and leave the lawn unbroken by flower beds.

The years when gardening consisted only of beds of Coleus, Geraniums, Verbenas and bedding plants have passed away, like the black walnut period of furniture. And even as the mahogany of our grandfathers is now brought forth from garrets and unused rooms, and antiquity shops and farm-houses are searched for the good old-time furniture, so we are learning to take the old gardens for our models, and the old-fashioned flowers to fill our borders.

The nurseryman of to-day has greatly improved the size and colour of the old varieties of perennials, so that they are far more beautiful than formerly, and offer a much greater choice. By skilful hybridization a hundred or more kinds of Phlox have been developed. In the same way, numerous varieties of Delphiniums, Iris, Peonies, Columbines, Canterbury Bells and Foxgloves have been produced. The old-fashioned annuals also appear in many new forms. In addition to the pink and white "Painted Lady," the

pure white and the dark purple Sweet Peas of our mothers' time, we may now cultivate some eighty varieties of this delicate flower. Thus the garden of hardy perennials, annuals and bulbs will give us a continual sequence of flowers in every form and colour from April until November, if properly made and tended.

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ANOTHER HARDY GARDEN BOOK

anthemums have been brought to perfection, and where they may steep their senses in this beauty daily, from the time the early cherry blossoms come until the petals of the last Chrysanthemum have been borne away by the winds. But how few dwellers in our cities give thought to the wonderful beauty to be seen, just a little way out in the country, when the blossoms come in Spring! And even were time available, how few among the multitude would leave the asphalt for a day merely to gaze upon the fairy-like scene! To them, living is such a tread-mill of obligation and toil and work, that many go through life with unseeing eyes for the great beauties of Nature. From the days when the stern Pilgrims, hoe in hand and musket slung over the shoulder, wrested a scanty living from the wilderness, until to-day, when millionaires travel between their country places and Wall Street by automobile, swift yacht, or special train, reading the last edition of the newspaper en

THE SEED-BED

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CHAPTER V

THE SEED-BED

HE possessor of a garden, large or small, should have a seed-bed, where seeds of perennials and some of the annuals can be sown and grown until large enough to be permanently placed. Not only will this bed give great pleasure in enabling one to watch the plants from the time the first tiny leaf appears, but also when laden with blossoms in fullest beauty. The knowledge that you have raised them gives a thrill of pride in the result which no bought plants, however beautiful, can impart. It is not necessary to prepare the seed-bed over a foot in depth, but the soil must be very light and fine, as well as rich. It is best, if possible, to have a portion of the bed somewhat shaded from the sun for a part of the day. If this com-

bination cannot be had in one bed, there should be a second for plants that want less sun. Biennials must, of course, be sown every year, as they bloom but once, then die.

Every year some perennials will disappear, killed by severe winters, by pests of one kind or another, or dying without apparent cause. To keep up the supply, therefore, some of each variety should be raised every year.

Foxgloves and Sweet Williams, if allowed to go to seed, will sow themselves and increase rapidly. The same with Hollyhocks, but, except on the edges of shrubberies and in wild borders, it is better to cut the stalk just before the seed is ready to fall, and save it to sow in the seed-bed.

In my garden, some seventy miles from New York, and where the spring opens ten days later, I sow my seeds,—the perennials about the tenth of April and the annuals from April twentieth to May first. Buy the seeds, if the garden is large, by the ounce or half-ounce; if small, in the seedsman's pack-

Foxgloves — seedlings ready for final transplanting September twenty-ninth



THE SEED-BED

I always have the seeds of perennials soaked for twenty-four hours before planting, and find that by so doing they are very sure to germinate. Care must be taken, when soaking a number of different kinds at the same time, to place the name of each variety of seed under the glass or bowl containing the same. When ready for planting, pour off the water and mix the wet seeds carefully with very dry earth, in a cigar-box, which is of the right size and easy to handle. sow, not too deeply, in rows about a foot apart in the bed; covering very lightly, according to size. One-half inch is enough for the large seeds. The very fine varieties should simply have the earth sprinkled on them. If planted too deep they will never come up. Seeds of annuals do not require soaking.

Pat the earth down firmly with the back of the trowel, sprinkle with a fine sprinkler late every afternoon, and it is not your fault if you do not have hundreds and thousands of young plants to make your own place beau-

tiful and to give to your friends. It is a keen delight, when a friend says that she has not raised such and such plants this year, to run and get your trowel and dig a bunch of this and that from the rows of sturdy little plants. It is a pleasure to know that a bit of your garden has gone to help make another's beautiful.

One of the greatest pleasures of a garden is in giving flowers and plants to your friends. Every October, when arranging the borders and separating plants, I send away great boxes of them, some to fortunate friends with lovely gardens, but without the same varieties; some to humble cottage gardens, and others to friends who have never grown a flower, but would like to try. This year, having made a large new garden, I was able to give away to friends and neighbors only about seven hundred plants, not seedlings but large plants and roots. Generally I can send away far more. Think what a delight this is!

THE SEED-BED

A request for some plants came to me last autumn from the baggage-master of a railroad station some twenty miles from us, who, by the boxes of shrubs and plants that came to me, inferred that I might have some to spare. I learned that all this man's spare time was spent in his little garden plot, so great was his love of flowers. I know, too, a village expressman (another whom nature intended for a gardener), whose little plot of ground is always a mass of beauty. He has a surprising variety of plants, and every one is a fine specimen of its kind. His Anemone Japonica alba are the finest I have ever seen, each one sending up perhaps a dozen slender stalks of the beautiful flowers. I have had great difficulty with this plant and have lost dozens of them. I always drive very slowly by the expressman's garden, burning with envy and wondering how he does it. In fact, it was only last year that I had my first success with these obdurate plants.

They must grow under trees whose branches are sufficiently high to admit the sun half the day. As they bloom in September and October, the tree protects them from the frost, and in winter they should be well covered with stable litter. They are among the few plants to be set out in the spring, for if not well established they are always winter-killed.

It is well not to empty the perennial seed-bed entirely in the autumn, but to leave a few plants of each variety to transplant in the spring, to take the place of those which have not survived the winter. When the bed is empty, in the spring, have a good coating of manure spaded in and proceed again with the sowing.

Biennials, and also most perennials, must be raised every year to keep up the supply.

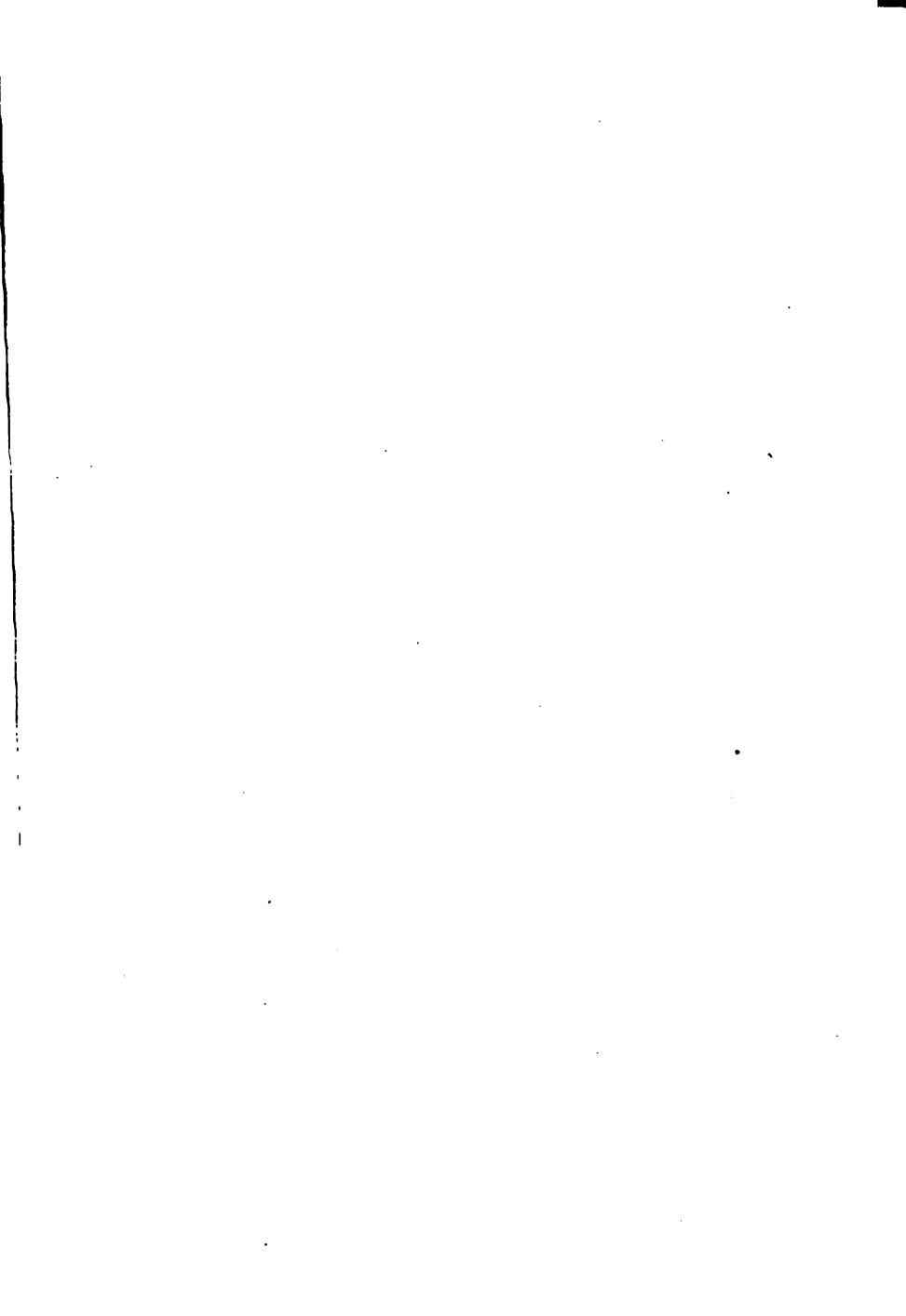
Long grass walk, with Narcisem Posticus blooming in the border April twenty-sixth



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PLANTING	,	

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ANOTHER HARDY GARDEN BOOK

The following are excellent varieties of Pears: Wilder Early and Manning's Elizabeth, which ripen in August; Bartlett and Flemish Beauty, in September; Duchesse d'Angoulême, Louise Bonne of Jersey, and Seckel, in October; Anjou, Easter Beurre, and Josephine of Malines, very late varieties. The last three should be gathered in October, and will keep in a cool, dry place until January or February.

Peaches to do well in orchards should be on high ground; they seem to prefer a hill-side. When grown in a protected situation, the buds swell early in the spring and are often destroyed by late frosts. Peach trees will not be hurt by a low temperature in Winter unless the weather is also damp or foggy, but late Spring frosts are certain to do them great damage. In a garden they should, if possible, be planted where they will be sheltered from the west and south by buildings, evergreens or hedges, that they may not start too early in the Spring.

CHAPTER VI

PLANTING

T CAN NOT impress too strongly upon my readers the importance of ordering their plants and seeds of well-known firms. best are always the cheapest in the end. Inquiry among friends will generally give the best information as to reliable seedsmen and growers. In ordering shrubs and plants it is important to specify the precise date of delivery, that you may know in advance the day of arrival. The beds or borders should be prepared in advance, so that everything may be set out without delay. Care must be taken that the roots are not exposed to the air and allowed to become dry. It is a good plan, when unpacking a box of plants, to sort them, laying each variety in a pile by itself, covering the roots with the moss

and excelsior in which they were packed, and then, if at all dry, to sprinkle thoroughly. Unpacking should, if possible, be done under cover—in the cellar if there be no other place.

Great care must also be taken in setting out plants that ample room be given; as the roots should be well spread out and never doubled up. Do not be afraid of having the hole too big; see that the earth is finely pulverized and well packed about the roots; that the plant is thoroughly soaked, and, if the weather is dry, kept watered for a couple of weeks. If the plants have arrived in good condition and are carefully set out, but few should die. I have never lost a deciduous tree, and frequently, in setting out a hundred shrubs at one time, all have lived.

Wherever there is a fence make a border, wide or narrow according to your space; if wide,—and it may be as much as twelve feet wide,—always make the edge irregular, never straight. Some prefer a hedge at the

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Long grass walk, with Foxgloves blossoning in the border June thirteenth

PLANTING

back of the border. The best effect and quickest screen is made by planting, against the fence at the back of the border, White Lilacs (not the Persian), Syringas, Deutzias and the beautiful new Altheas. Plant these shrubs three feet apart. In good soil they will send up great canes, and in four years time should be six feet high and shut you in from all prying gaze.

In planting a border, always keep in mind the fact that it should be blooming from May to November. Put in the plants according to height, the tallest, of course, at the back and the lowest in front, filling the front also with spring-flowering bulbs, Daffodils, Tulips and Narcissi, which will blossom and be over before the plants come on. You will thus have the longest succession of bloom. If the border is quite wide—from four to six feet—and perhaps one hundred and fifty feet long, it will hold a surprising number of plants.

Certain plants, in a long border with a

background of shrubs, look best in rows, in spite of all that has been written against it: For instance, Hollyhocks, a long row of plants three deep, broken every ten feet or so by a clump of a dozen, and in front of these a single row of Rudbeckias, broken with clumps of six or so, and the rest of the border planted in masses, more or less according to space, of Phloxes, Larkspur, Lilies, Columbines, Sweet Williams, with every now and then a good clump of Chrysanthemums to blossom when all other flowers are gone.

In filling a border along a rather short path, the plants should always be set in clumps of from six to twelve of a kind. If the border is narrow and has no shrubs or hedge back of it, the effect will be better if the plants do not exceed three feet in height. Omit from such a border Hollyhocks, Rudbeckias, Sunflowers and Cosmos. Sweet Williams, Columbines, Sweet Alyssum, Candytuft, Nasturtiums and *Phlox Drummondii* can all be grown as edging for borders.

PLANTING

I have a border, two and a half feet wide and three hundred and fifty feet long, that is a mass of bloom from the middle of May until the last of September.

It may give the reader a suggestion to know its contents. Everything is in rows, the only border in my garden where the planting is done in this way. Along the edge is Narcissus Poeticus; back of Narcissus Poeticus a row of Sweet Williams, pink, white and very dark red; back of the Sweet Williams, Foxgloves; back of the Foxgloves, Peonies and Hydrangea grandiflora planted alternately; and back of these, a row of Hollyhocks. About two feet behind this border, a row of Rudbeckia (Golden Glow) grows like a tall hedge.

When Narcissus Poeticus has finished blooming, the Peonies come on. Before the last Peony has lost its petals, the Sweet Williams (quite two feet high) are in blossom, and the Foxgloves (from three to four feet high) begin to bloom, and last for a

month. While these flowers are still lovely, the tall Hollyhocks begin to flower, each plant sending up from three to five stalks. Then, by the time the Hollyhock stalks are cut down, the Hydrangeas, which are trimmed back very severely every autumn, are a mass of white. Meanwhile the Rudbeckias, for quite six weeks, form a yellow background. The illustrations show this row of flowers while the Narcissi, Peonies, Foxgloves, and Hydrangeas are successively in blossom.

Early in June, I transplant into perennial borders, wherever a spot can be found, clumps of Asters, Cosmos and other late annuals, which are beautiful in September and October when most flowers have ceased to bloom.

From September twentieth to October fifteenth is a busy time in the garden. New beds and borders should be made then. The plants in all borders four years old should be lifted, and the beds or borders spaded deeply with plenty of manure, the plants

PLANTING

reset, and the young perennials transplanted from the seed-bed into their final places. All perennial plants whose roots are sufficiently large, should now be divided and reset. This fall planting and transplanting should be done at about the time mentioned, for the shrubs and plants must become well rooted before the ground freezes, or they will rarely survive the winter. No matter how rich a bed or border may be, I always have the hole to receive the plant made larger than is necessary, and put a spadeful of manure in the bottom. In transplanting, my man always has a wheelbarrow of this at his side to work from.

If there are bare places in lawns or grass paths, sow grass seed about the twentieth of September, then roll, and the grass will be well rooted before cold weather.

It must be borne in mind that everything possible should be done in the fall. Perennials start early in the spring, and it is a pity, when they are once started, to disturb

them. When the frost has finally killed everything, all the dead tops should be cut off at the ground, the dead annuals pulled up, the borders made clean and neat, and, about the last of November, covered with a good layer of stable litter, leaves or straw. I have always found the plants start earlier and do better for this slight protection.

Whenever I tell my inquiring friends of the proper preparation of beds, and the spring top-dressing, and winter covering with manure, there is generally an exclamation of alarm at the quantity used. But much is required to make the garden grow. I call upon the farm for manure when the stable supply is insufficient, and both my farmer-husband and his manager at times look askance. But how can I live unless my garden has what it needs! The farmer-husband looks upon my gardening as a mild species of insanity, and cannot understand why a little garden with a few plants is not enough for any woman. By dint of much showing

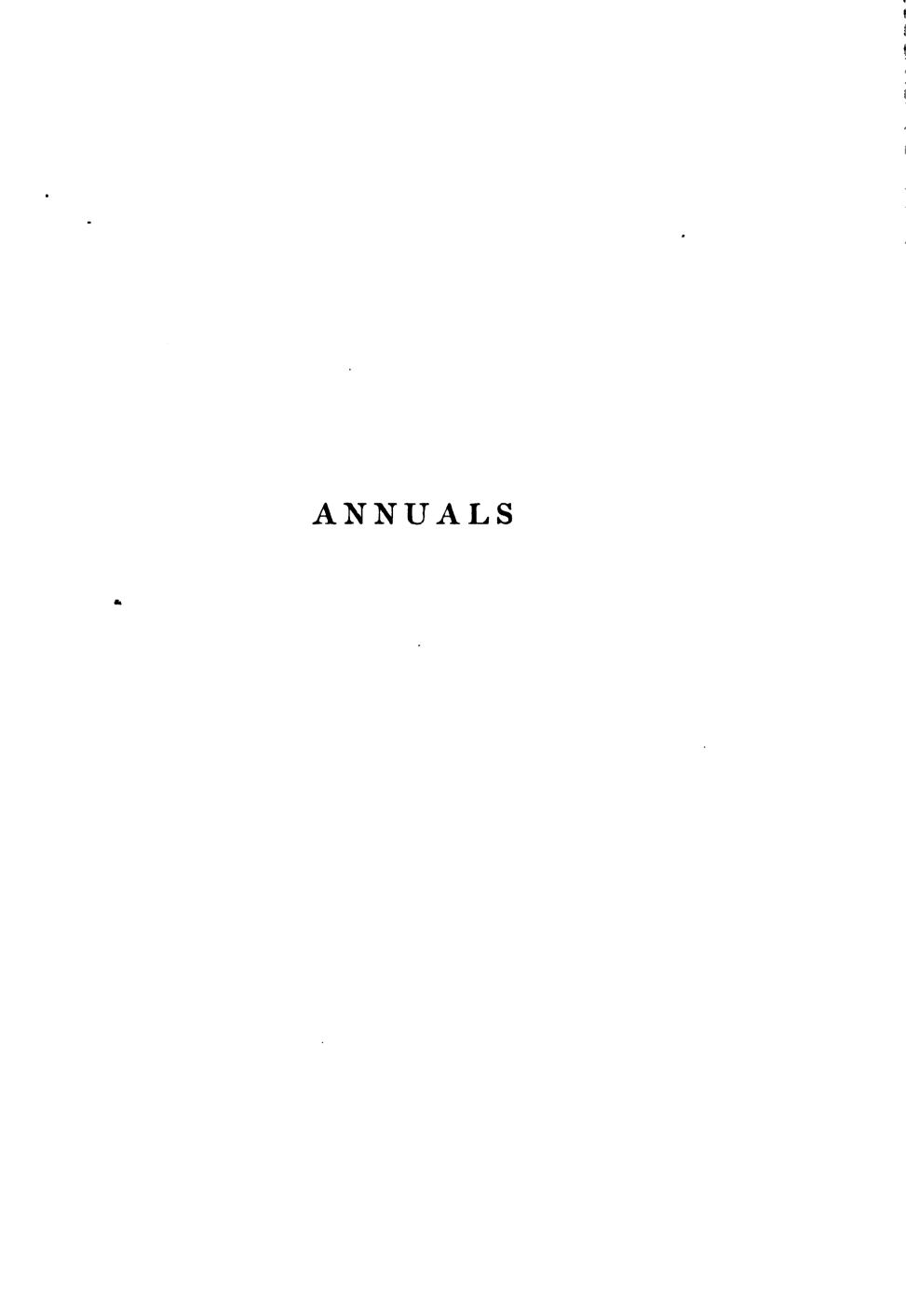
PLANTING

and explanation through many years, he has acquired a floricultural knowledge which enables him to tell a Rose, Lily, Sunflower and Phlox, and of this knowledge he is proud.

All manure should be drawn out into the garden when the ground is still frozen, in March or earlier, and placed in convenient piles, so that the ground may not be cut up, when soft, by the wagon wheels; and also to facilitate work when the first spring days come, and there are a hundred things to be If possible, have a spadeful of wellrotted stable manure stirred into the ground around each shrub and vine in early spring. The result will amply repay you. Save all wood-ashes carefully, under cover, for the garden, and scatter them on the beds and on the grass. Get well-ground fresh bone-meal, and let all plants have only a handful in the spring, and the reward in bloom is great. To have good results from the hardy Chrysanthemums the soil cannot be too rich, and I generally "give them something to eat,"

as a boy who helps in the garden calls it, about the fifteenth of June and the fifteenth of August.

Care must be taken, in using bone-meal, not to put on too much, and to keep it away from contact with the rootlets.





CHAPTER VII

ANNUALS

THERE are so many annuals that I will write only about the few which are easiest to grow and are most desirable. For me a flower must have merits for decorating the house as well as for making the garden beautiful.

The other day I found an English book on flowers, and at once sat down to read it, expecting enjoyment and profit from every page; but at the end of a few minutes I came upon the following paragraph:

"Particularly to most women one of the chief uses or functions of a garden is to provide flowers to be cut for the decoration of rooms. But I hold that a flower cut from its plant and placed in a vase is as a scalp on the walls of a wigwam."

And I read no further in that book.

I grow flowers to gather them, both for the house and to give away. We keep about sixty vases full in the house from late May until October, and never allow more than two colours in the same room. I have a yellow room, where only yellow and white flowers, or white and blue, are permitted; a pink room, for white and pink or pink and crimson flowers; and a hall, whose dominant tone is a rich red, where the flowers are red and white.

Some of the annuals, like Mignonette and Poppies, must be sown where they are to grow. Mignonette does best in cool, rather moist soil.

Poppies, and oh! have plenty of them and all kinds. Get the Shirley Poppies, the Giant Double, the fringed kind, and the California with their sunny petals. Sow in great numbers wherever they are wanted, here and there in the borders wherever there is space. If there is no other place, sow them in rows in the vegetable garden.

Long grass walk, with Hydrangeas; Rudbeckias in the background August twenty-fifth



ANNUALS

They are splendid in the house, but, alas! fall too quickly.

The Shirley Poppies are almost like fairy flowers, they are so delicate and beautiful. They are the first of the annual Poppies to bloom. Then comes the variety which grows wild in France and Germany,—scarlet, with black blotches at the base of the petals. Last to bloom are the tall, fringed double and single Poppies,—white, pink and scarlet, growing on strong stems three feet high. Poppies must be sown thinly and the earth only sprinkled over the seeds. Sow as early in the spring as the ground can be worked, and thin out to six inches apart when the plants are well up.

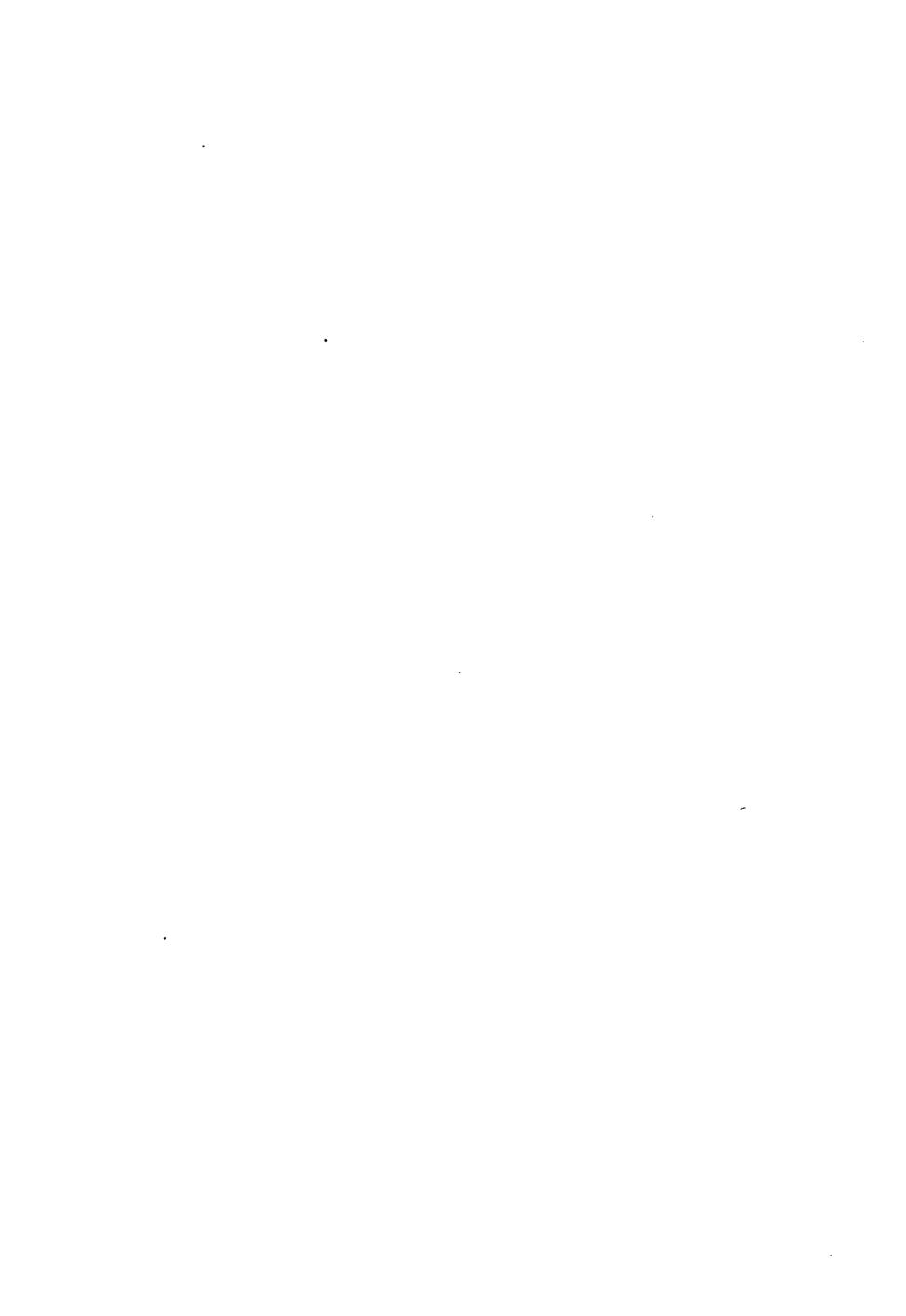
Nasturtiums, too, should be planted where they are to grow, also Sweet Alyssum and Candytuft. All of these make good edgings for borders. If not allowed to go to seed they will bloom all summer.

Sunflowers, the Dwarf Double, and the tall Giant Sunflowers, are fine in back-grounds and against fences.

THE FOLLOWING ANNUALS SHOULD BE SOWN IN THE SEED-BED
ABOUT APRIL TWENTIETH TO MAY FIRST

Antirrhinum, or Snapdragon, growing eighteen inches high. If sown in early May they will bloom from August until late autumn. The same is true of the German Ten-weeks Stocks, which have a long period of bloom. The white ones are most lovely.

Asters, all varieties; sow a quantity. They are not only beautiful, but they give an abundance of blossoms in late September and early October, when flowers are beginning to be scarce. I prefer the Giant, Comet, Ostrich Plume and the late-flowering branching kind. Of these last, "Purity" (snow-white) and "Daybreak" (shell-pink) are the best, often bearing thirty flowers on a plant and lasting, in water, five days. A small quantity of wood-ashes stirred into the soil of the Aster bed is a fine fertilizer and destroys insects that attack the roots. Transplant in June to wherever they are to blossom.



ANNUALS

I have lately learned, that the only way to destroy the black beetle which appears upon the Asters and eats the flowers, is to have them picked off morning and evening and thrown into a pan containing kerosene oil, which kills them.

Cosmos. The early-summer flowering variety of Cosmos will begin to bloom in July, and, if not allowed to go to seed, will be a mass of flowers until killed by frost. In favorable soil Cosmos grows luxuriantly, and resembles a small tree six or eight feet high. This plant should be staked, or it is likely to be blown down. It is very effective when transplanted to the borders, blooming gayly when there is not much else. The pink and crimson varieties are beautiful, but do not compare with the white.

Calendula, growing about a foot high in every shade of yellow from deep orange to pale ivory, is one of the best and most constant blooming of the yellow flowers.

Centaurea, or Cornflower. These come

in many colours, but I grow only the tall, ragged, blue variety. If not permitted to go to seed, they will bloom plentifully for several months. On the dinner-table with blue and white china, and in June combined with Syringa, they make a beautiful and unusual decoration.

Marigold, both the double African and the double French. These flowers always give me a pricking of the conscience, for during the summer, when there are plenty of others, I give them the "go by," but in October turn to them with shame and thankfulness.

Phlox Drummondii grows about six or eight inches high, and comes in many colours. It makes beautiful borders, particularly the white, pink and dark red.

Plumed Celosia, or Cockscomb. The new varieties are very effective.

Zinnias. Lately I have grown only two varieties, a vivid scarlet and a salmon-pink. They are not only lovely when growing, but

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Poppies growing in rows July fourteenth

ANNUALS

make a beautiful house decoration, as the stems are long and stiff.

Sweet Peas, which no garden can do with-Several books say, plant in autumn, very late. I have twice sown two pounds at this time, carefully following the directions, and not one single Pea came up the following spring. Sweet Peas should be sown in the spring the moment the frost comes out of the ground, so that they may become deeply rooted before dry weather. Make a trench about a foot deep and a foot wide. Have a good layer of manure in the bottom of the trench, over which put a couple of inches of earth, and over this earth put a good layer of wood-ashes, again a sprinkling of earth. Then sow the Peas, and cover them with a couple of inches of earth. As they grow, fill in the trench, and keep on hilling up the plants until the roots are very deep. It is well to mulch them with the clippings of lawn grass. In this way the plants are

kept from drying up, and will bloom until October.

Sweet Peas flourish best on a trellis of galvanized wire netting. It should be a permanent trellis, made of cedar posts set three feet deep, so as to be below the frost line and four feet high. To this attach the wire netting. A trench should be made on either side of the netting, so that a double row of Peas may be sown. The quantity sown depends on the length of the trellis; three pounds will sow a double row one hundred and twenty-five feet long. I always sow the different colours separately. It simplifies the task of arranging them, if they can be gathered separately. A bowl of white Sweet Peas and Maidenhair Fern is indeed a "thing of beauty."

Pansies, every one loves them. They are annuals, but do best if treated as biennials. The most practical hint that I was able to get from "Elizabeth's German Garden" was where she spoke of carpeting her Rose beds

ANNUALS

with Pansies. This instantly appealed to me, as I greatly dislike to see the earth in the beds and borders, and in Rose beds it always is to be seen. So I bought an ounce each of white and yellow Pansy seed, sowed it about the tenth of July in the partly shaded end of the seed-bed, and by October first had splendid great plants. I did not allow these to blossom, but picked off the buds, and, after the Rose beds had been given a plentiful top-dressing of manure carefully stirred in with a large trowel, I transplanted my Pansy plants.' Of course, they had to be covered over with the Roses the last of November, and often during the winter I wondered whether the dears would be smothered. On the twenty-eighth of March the beds were uncovered, and, imagine it! there were Pansies in bloom. From April tenth until late in August these beds were simply a carpet of white and yellow. I never saw anything like it. It was probably due to the rich soil, perhaps also to the free water-

ing necessary for the Roses. Then, in order that no Pansies should go to seed, my own maid, who is very fond of flowers, undertook each morning to cut off all that were beginning to wither. This required from one to two hours, but certainly prolonged the bloom, and I could never have spared a man so long for just the Pansies. Sow Pansy seed in the seed-bed about the tenth of July, and transplant late in October.

These are some of the more important annuals which no garden should be without. All of them are easy to raise, and blossom abundantly. I do not speak of the many others, but advise trying new flowers every year.

The first week in June is the time to transplant all annuals. Do it, if possible, directly after a rain, always late in the afternoon, and, of course, water well after transplanting. I have a method of my own for the transplanting of seedlings, and by

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A Bowl of Cosmos September twenty-ninth

ANNUALS

following it the tiny plants never wither or are set back, and in fact do not seem to know that they have been moved. Take a tin box, such as biscuits come in, half fill it with water, then lift into it from the seed-bed about one hundred seedlings at a time. With a sharp-pointed stick make holes in the bed where the little plants are to go, and then put them in. Soak the ground thoroughly after each patch is finished. In this way the tiny rootlets never become dry.

All the beds and borders can be kept free from weeds and in good condition if gone over with a trowel every five days, or once a week, the earth stirred thoroughly, and any weeds that may have grown taken out. It is particularly necessary, for a few weeks in the spring, to keep well ahead of the weeds. I always think of my sins when I weed. They grow apace in the same way and are harder still to get rid of. It seems a pity sometimes not to nurture a pet one,

just as it does to destroy a beautiful plant of Wild Mustard, or of Queen Anne's Lace.

LIST OF ANNUALS, WITH HEIGHT, COLOUR AND PERIOD OF BLOOMING

Asters, all colours; one to two feet; August to October.

Alyssum, white, dwarf for borders; six inches; blooms all summer if not allowed to go to seed.

Balsam, Camellia-flowered, pale pink, dark red, white; two to three feet; July and August.

Calendula (Pot Marigold), all shades of yellow; mid-July until killed by frost.

Calliopsis (Coreopsis), yellow with red or brown center; two feet; mid-July, until killed by frost.

Candytuft, red, white, purple, Empress variety white the best, fine for edging; six inches; blooms continually if not allowed to go to seed.

Centaurea (Cornflower), all shades of blue; three feet; blooms three months if kept cut.

ANNUALS

Cockscomb, crimson and scarlet; two to three feet; August and September.

Cosmos, white, pink, crimson; three to five feet; from the fifteenth of July until killed by frost.

Eschscholtzia, yellow Poppies; one foot; blooms all summer.

Godetia, pink, crimson, white; one foot; blooms all summer.

Marigold, all shades of yellow; one to two and one-half feet; mid-July until killed by frost.

Mignonette, average height one foot; blooms all summer if kept from seeding.

Nasturtiums, all shades of yellow and red; dwarf, nine inches; climbing, five feet; bloom all summer until killed by frost.

Pansy, many colours; six inches; from early spring until November, if kept well cut.

Petunia, double giant-flowered the only kind to raise; white, crimson and pink; one and one-half feet; bloom all summer.

Phlox Drummondii, many colours; one

foot; blooms July, August and September if not allowed to seed.

Poppy, all shades of pink and red, also white; one to three feet. If several varieties are planted can be had in bloom from three to four weeks; end of June and July.

Snapdragon, scarlet and white, white and yellow, pure white; one and one-half feet; July and August.

Stocks (German Ten-Weeks), white, pink, red, purple; one and one-half feet; middle of July until middle of September.

Sunflower, yellow, dwarf and tall varieties, single and double; three to six feet; all summer.

Sweet Peas, all colours; three feet; grown on bush or trellis; end of June until October if kept well cut and moist.

Sweet Sultan, purple, white, yellow; one and one-half feet; June, July and August.

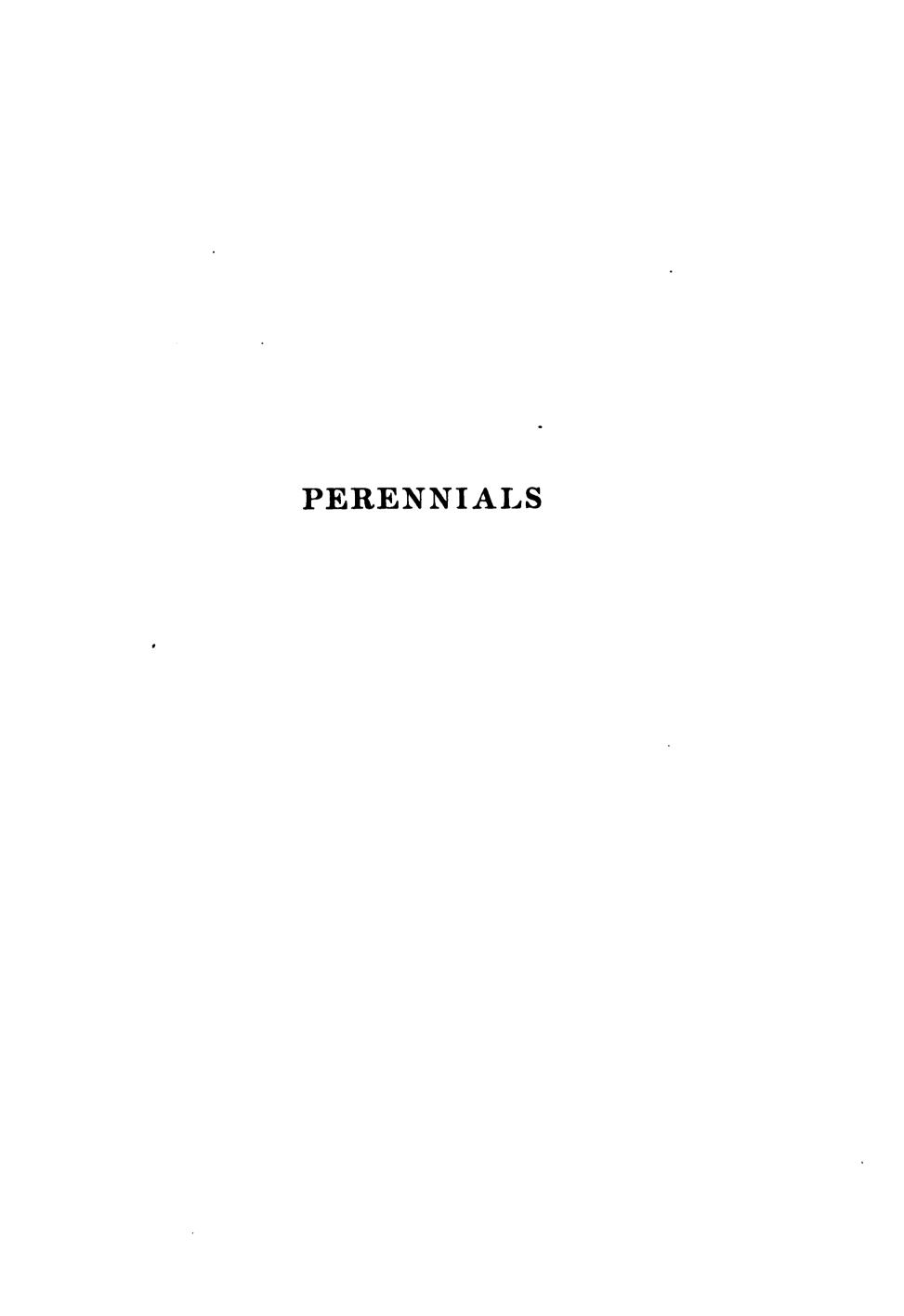
Zinnia, many colours; one and one-half to two feet; July, August and September.

TREES

I have always preferred to plant deciduous trees in the Spring, and have had extraordinary success. The hole to receive the trees must be deeper and larger than the roots, and in the bottom should be placed a quantity of well-rotted manure, which must be covered with about four inches of good earth free from lumps and stones. Then set the tree, which one man should hold upright, while another, after spreading out the roots carefully, shovels in the earth, which should be top soil, well pulverized. When the hole is about half filled in, turn on the water and thoroughly wet the ground below and all about the roots. The rest of the earth can then be filled in and pounded down, and the ground around the tree covered with a mulch of coarse manure. If the weather is dry, the tree must be well watered twice a week and the earth soaked to the roots; the tree will then be quite sure to live.

When visiting recently in a beautiful country town not far from New York, where

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CHAPTER VIII

PERENNIALS

SOME of the perennials to be sown yearly in the seed-bed from about April first to tenth, are the following:

Columbines of all varieties, yellow, white, shading from pink to red and from pale blue to darkest purple.

Of Columbines every garden should have plenty. Blooming about May twentieth for three weeks, they are a perfect delight. They are very hardy, germinate readily in the seed-bed, are easy to transplant and need but little care. I have never been able to get them much over three feet in height, but then I have often a dozen stalks of bloom on a single plant, which is very satisfactory. The first dozen plants were sent to me by a friend from his garden on Long

Island; now I have hundreds of them,—single and double, white, yellow, all shades of red and pink, pale blue, and a blue one with a white center almost like an Orchid; many shades of purple, also purple and white.

Hollyhocks, single and double, of all colours. In order to get the desired colour effect with these, keep each variety separate.

No one can have too many Hollyhocks. Plant them at the back of the borders among the shrubbery, along fences, and in great clumps in any odd corner, or around buildings; they are never amiss, and always beautiful. I find that a Hollyhock cannot be counted upon to bloom more than three years. First-year stalks are about four feet high; afterwards, if in good soil, they will be from six to eight feet. There were hundreds of this size in my garden last summer, each plant with from three to five towering stalks of bloom. As soon as they have gone to seed, I save what seed I want and the stalks are then cut down and burned. By

Hollyhocks in blossom July twelfth

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sowing the seeds as soon as thoroughly ripe and dry, plants can be raised which will be large enough to transplant in October, and will bloom the next year. These young plants should be given a slight covering the first winter, that they may not be winter-killed.

When in a border, the Hollyhock, which will flourish in any soil, grows to such an extent that Lilies or Phloxes, or anything else near by, are likely to be crowded out, unless care is taken to cut off the lower leaves, which become enormous. I have this done usually three times before they bloom, beginning early in May, and great wheelbarrow-loads of leaves are taken away at each cutting.

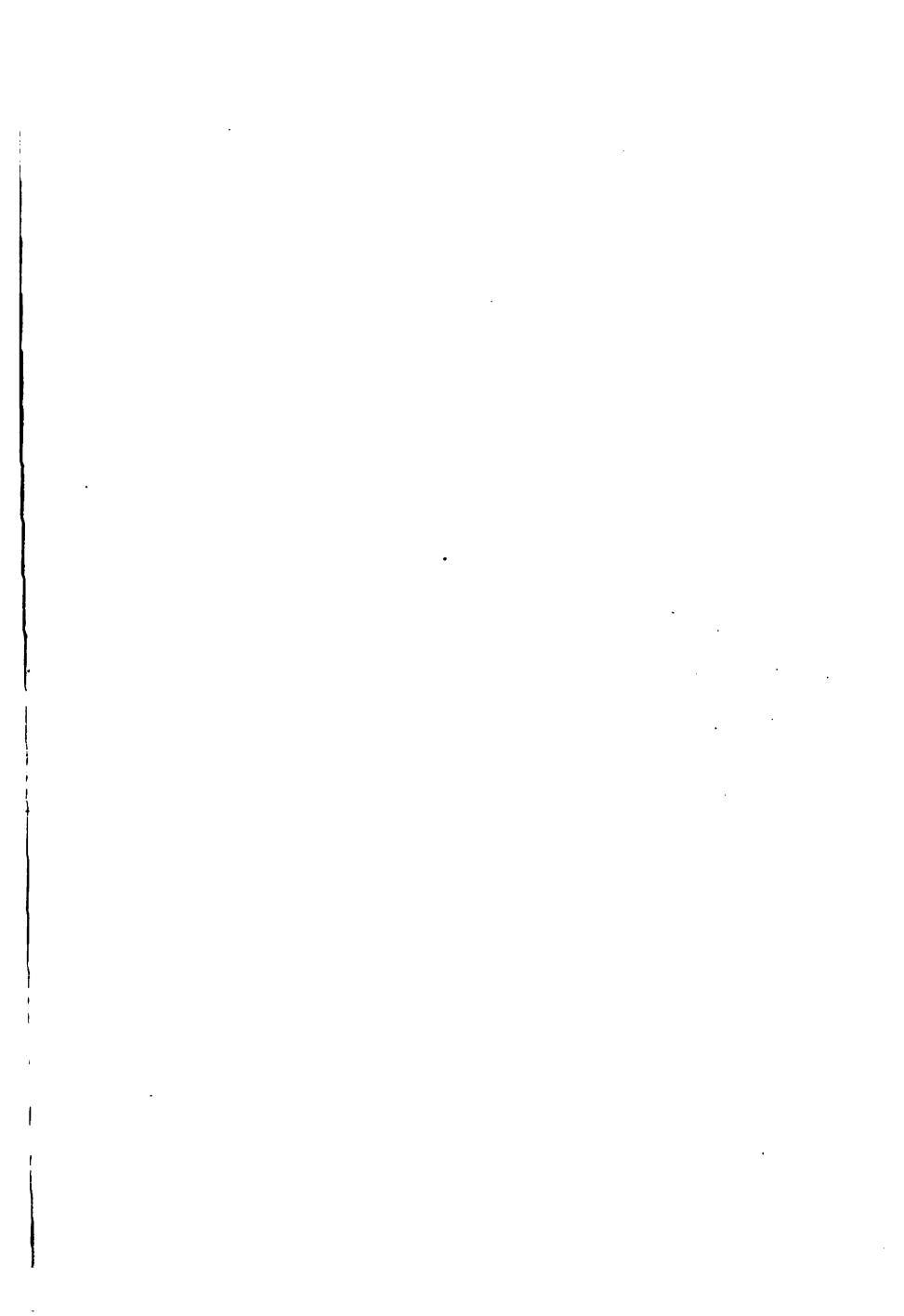
Sweet Williams, red, white and pink. These will grow from eighteen inches to two feet. The stems are straight and stiff, and the trusses of bloom about five inches across, with individual flowers as large as a nickel; they keep well in water and make a beautiful edging for a border, or give great effect when planted in masses. They bloom for

three weeks or more, and make fine decorations for church or house.

Platycodon Mariesi, beautiful blue; they resemble Canterbury Bells, and, as they blossom after the Canterbury Bells, are valuable in continuing the period of blue flowers, with the advantage of being perennials.

Delphiniums, perennial Larkspurs, all varieties. These seeds I have found more difficult to make germinate than any others, so I do not rely upon what I raise, but purchase many plants. My best results have come from saving the seeds from the first crop of blossoms, drying thoroughly, and then sowing at once. I have found these seeds more sure to germinate than those bought in early spring. Perhaps nature intends them to be sown in this way, instead of nine months later.

One can never say enough in praise of Delphiniums. Three-year-old plants will send up eight to ten beautiful great spikes of the richest blue, four feet high. The moment a blossom withers, cut the stalk



ANOTHER HARDY GARDEN BOOK

many of the old homesteads there are embowered in them.

The Magnolia conspicua and Magnolia Soulangiana can be grown either as small trees or large shrubs. In intensely cold localities they are somewhat difficult to bring through the first two or three Winters, but if given some protection by driving evergreen branches into the ground about them, they will generally survive. They grow rapidly when once well established.

Everyone knows the value of the Lombardy poplar in giving emphasis to the landscape; when properly planted they are very effective.

I have been told by landscape gardeners, that the Lombardy poplar no longer flour-ishes to great age in this country as formerly, and as it still flourishes abroad, one man of great experience saying to me that he did not know of a single perfect row of these trees that had been planted within the last twenty years, in every case some having died

down to the ground; another will immediately spring up. I had four crops of blossoms from some of my Delphiniums last summer, so that, from the end of June until the middle of October, there were always some of them in blossom. Some varieties of tall English Delphiniums are very beautiful. Among them is one, Coelestinum, of the loveliest shade of light blue, with very large, double individual flowers. As I have said before, the Delphinium blossoms at the same time as Lilium candidum, and should be planted near by. Great bunches of these two flowers, in tall vases, are lovely as well as unusual.

There is a horrid small white worm which attacks the roots of the Delphinium, and gives no sign until you see the plant dying. I have found that keeping the soil around the plant well covered with coal ashes is a preventive. Delphiniums are hardy and long-lived (unless the worm gets them), and, once planted, they live a dozen years.

Coreopsis (Grandiflora). Every one knows the Coreopsis, which, by continual cutting, will give abundant bloom for three months. The variety with velvety maroon centers is particularly fine.

Hibiscus is very easy to raise, and should be planted among and along the edge of shrubbery. The plants are quite hardy, grow four feet high, and masses of them in pink or white are fine. They bloom in August and September.

Rockets, white and purple. These increase tremendously from self-sowing, so be careful or they will suffocate all that grows near them. I have many plants, all of which have come from a single one that a colored woman gave me a few years ago. She is a nice comfortable old "mammy," black as the ace of spades, with a great love for flowers and a nice patch of them. We have exchanged plants several times. Some of the nicest things I have in my garden came to me in this way, and it is great fun.

Whenever, in driving about, I see a particularly fine plant in a dooryard, I make friends with its owner, and later suggest that if she (it is usually "she") will give me a small root of this or that, I will bring her some plants or bulbs from my garden, of a kind which she has not. So we are both equally benefited. In this way I was once given a plant of Valerian, which has a tall, beautiful white flower with a most delicious odour like vanilla. It blooms for three weeks in late May and early June. From this one plant there are now in the garden a number of large clumps several feet in diameter, and have given away certainly fifty roots. Valerian is a small white flower in good-sized clusters on long stems, seen now-a-days only in old-fashioned gardens. I am told it cannot be bought of horticulturists.

One must have *Chrysanthemums*, but where the thermometer falls below zero there are not many to be bought, other than the pompon varieties, that will blossom in the garden

before being killed by frost, or that will survive the winter. Year after year I have bought dozens of the so-called "Septemberflowering Chrysanthemums," and have only succeeded in making them blossom by the middle of October, by planting them on the south side of a building, in richest soil, giving abundance of water, and covering on all cold nights. But I have beautiful plants of perfectly hardy, good-sized blossoms of yellow, white, pink and red, the roots of which have come from the gardens of my farmer friends. I have never been able to buy this old-fashioned hardy kind. In the spring, as soon as the plants begin to sprout, divide them, setting out three or four sprouts together. In this way the stock will increase wonderfully.

Chrysanthemums require very rich soil, must have sun, and do best against a building or a wall. About the first of July and the first of September have a couple of trowelfuls of manure carefully dug in about

the roots of each plant. Buds should not be allowed to form until September, and the new shoots should be pinched back until then, to make the plants strong and bushy. I do not envy any one who has only the great, solemn, stiff flowers of the prize-show variety. An armful of the hardy garden ones, with their delicious odour, is worth a green-house full of the unnatural things which are the professional gardener's pride. When you can keep twenty or more vases filled from your own garden with these last blossoms of the year, in all their lovely colours, and not miss one of them from the plants, you will agree with me that they are the only kind to raise.

Perennials, sown in rows in the seed-bed in April, will be nice little plants by July, when they should be lifted and transplanted some six inches apart. The portion of the seed-bed where the annuals were raised can be used now for the purpose. This is particularly necessary for Larkspur, Columbines,

Monkshood, Platycodon, Coreopsis, Hibiscus and Pinks. If, when transplanting, each plant is set with a trowelful of manure, the result will be plants twice as large by the first of October, when they can be again transplanted to their permanent places.

Oriental Poppies and Pinks should also be sown in the perennial seed-bed.

Oriental Poppies, with great blossoms as large as a tea plate borne on strong stems, make a grand show about the end of May and beginning of June.

Pinks, too, should be in every garden, if only for their delicious, spicy odor. The Chinensis, or China Pinks, are the best.

Sweet Williams and Oriental Poppies need not be moved from the time they are sown until finally transplanted in the autumn.

Yucca filamentosa, the hardy native of Mexico, sends up, about the tenth of July, great stalks six to eight feet high, bearing masses of white flowers. The individual blossoms are of creamy waxy texture and as

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ANOTHER HARDY GARDEN BOOK

difficult to make live, unless they have the sandy soil they love. In localities where the soil is of clay, it will be rather a struggle to get them well started. This done, however, they rarely die.

In planting evergreens, it is a good plan and well worth the trouble, to make a hole about three feet square and put in the bottom of this a good loam, to which a quantity of sand and very old manure has been added, then a layer of three or four inches of earth; plant the trees and fill in the hole with more earth of the same composition, watering well, and the tree is almost sure to live and make rapid growth. A little extra digging in making the hole to receive the tree, so that the roots have encouragement to put forth into good loose soil, will make the greatest difference in the growth of the tree.

Leaf-mould and old sods which have been finely chopped with the spade are the best fertilizers to use when planting ever-

beautiful as an orchid. A single stalk of Yucca, in a tall vase, will last nearly a week, and is as unusual as it is beautiful for house decoration. Yuccas are perfectly hardy, need no protection in winter, no fertilizer, no water in dry weather. In my garden, at least, they have not been attacked by insects and have grown placidly on, needing absolutely no care but to have the stalks cut down when they have finished blossoming. They are most effective when grown in clumps, but look very well along a fence with Hollyhocks at the back. The plants are so inexpensive that I have bought mine, but see no reason why they cannot be raised from seed. Small plants form near the parent stem, and these can be separated and transplanted. A late spring frost will sometimes nip the flower stalk that has just started, and there will be no bloom that year. To avoid such a disaster, whenever, in late spring, a frosty night is suspected, cover the plants with a piece of burlap.

Tritomas (Red-hot Poker Plant) bloom in September and October, and should always be planted in masses, and in full sun. They must be well covered with leaves or stable litter late in November, or they will be winter-killed. They increase rapidly.

Gaillardias bloom all summer, and keep fresh in water for days. The plants are covered with long-stemmed, yellow flowers with dark crimson centers, and should also be protected in winter.

Veronica longifolia, a most beautiful dark blue flower, which grows in long spikes. Veronica remains in bloom during the month of August, and is one of the most showy flowers in the garden at that time.

Iris, Japanese and German, do well when naturalized in the grass. These plants increase so, that every four years they can be separated. Beginning with the German Iris, flowering the end of May, they can be had in bloom until the Japanese Iris finishes blossoming the middle of July. No Orchids

are more beautiful than the Japanese Iris. A couple of weeks before and during the period of bloom they must be kept very moist.

Both the German and the Japanese Iris are perfectly hardy and increase rapidly. The English Iris, of which the white variety, known as Mont Blanc, is the most beautiful, and the Spanish Iris, in all its varieties, are not hardy. But with careful winter covering, about equal to that given to the everblooming Roses, they will generally survive, and are well worth the trouble. The roots of all varieties of Iris are very long, and care must be taken to give them plenty of room and to plant deep.

Peonies. For beauty and usefulness Peonies rank with Phloxes. Large plants will frequently bear twenty great blossoms. By raising both early and late varieties, their period of bloom can be continued for a month. The old, dark crimson variety is the first to bloom; the old-fashioned double pink

and double white are beautiful enough to satisfy any one, but the new varieties give immense choice as to colour and form.

The Japanese Tree Peonies do not die to the ground every year, like the herbaceous kinds, but form woody branches and grow like a small shrub. The blossoms of these Tree Peonies are truly wonderful; the only care needed is a little fertilizer in the autumn and a slight winter covering. They are best grown in front of the shrubbery. They blossom before the herbaceous varieties. The herbaceous Peonies can be grown in large beds by themselves, in borders with other plants, or as single specimens in the grass or among the shrubs.

Peonies start so early in the spring that they should be manured in the fall, or there is danger of breaking the tender shoots.

Phlox. There is no flower in the garden more beautiful, more easily cultivated, or giving so much bloom as the Phlox. I could certainly never have a garden without it.

Bed of Peonies on edge of lawn June sixth

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PERENNIALS

In mine there must be a couple of thousand. I have a great mass, of probably two hundred herbaceous Phloxes, growing together in one corner of my garden, the very tall varieties over four feet high. About the fifteenth of July, every year, this corner is a superb sight. Most of these plants are over fifteen years old. They have been kept fine by heaviest top-dressing every year, and by lifting all the plants every three years and digging in quantities of manure, and also by separating each plant into three, by cutting the roots with a spade, or pulling apart with the fingers.

The newer varieties of Phlox come in the most beautiful colours,—dark crimson, fiery scarlet, many shades of pink, pink striped with white, and pink with a white eye; all shades of lilac, lilac with white and purple, the beautiful pure white, and the white with the scarlet eye. Of all the varieties, my favorites are the snowy white, and the salmon-pink with the dark red eye. Buy

fifty large field-grown plants; at the end of three years separate them, and you have a hundred and fifty. They present a picture of progression much surer than the tale of the eggs that were to do so much.

Many of the individual blossoms of my Phloxes are larger than a fifty-cent piece; a number of them larger by measurement than a silver dollar, and the heads also are very large. Always erect, neat and smiling, never needing to be staked (such a task in a large garden), when once grown they must always be dear to a gardener's heart. By breaking off the heads of Phlox immediately after blooming, a second crop of flowers will appear in about three weeks. The heads will not be so large as the first, but they will amply repay the slight trouble.

Every owner of a garden has certain favorites; it really cannot be helped, although the knowledge that it is so makes it seem almost as unfair as for a mother to have a favorite child.

PERENNIALS

A real lover of flowers finds it difficult to cast away a plant that has bloomed its best, even though the blossom is unsatisfactory. In my garden there are, at present, some plants that I am longing to dig up and burn. There are two climbing Roses that came by mistake in a large order and were set out. They have thriven as no others, cover a very large space on a trellis, and in June bear thousands of a most hideous, small, purplish crimson Rose. other plant is Scabiosia Caucasica. Beware of the same. The description of it in a catalogue caused me to feel that without it the garden was nothing. A dozen were ordered and set out in a border, in two clumps. They grew and waxed strong, and fairly clambered over everything within several feet of them, seeming to be like gigantic thistles. Finally in August, on stems two feet long, the eagerly looked-for blossoms appeared. These were described in the catalogue as "a large head of pale blue

flowers." But, to my despair, it developed a round green ball about three inches in circumference, with white thistle-like petals. And yet the plants had surpassed themselves. It seems a poor reward to turn them out to die.

Lychnis (London Pride). I cannot now recall any perennial except the Cardinal Flower, which has blossoms of so brilliant a scarlet as Lychnis, or London Pride, growing tall and erect, with its bright colour. It is most effective when grown in large clumps.

Monkshood (Aconitum Napellus) grows four feet high, and has a beautiful blossom of rich blue growing in quite large clusters. The name must come from the resemblance each individual blossom bears to the capuchin of a monk. These plants should be grown under tall trees, for they cannot stand too strong sun, and will blossom very late in the autumn if protected by the trees from frost. I gathered them last year in November.

PERENNIALS

Phloxes, Rudbeckias, Monkshood, Valerian, Lychnis, Tritomas, Iris, Peonies and Veronica are best raised, not from seed, but by buying the plants, and then after a time, as I have said before, dividing them. For instance, take a fine large plant of Phlox of some choice variety, divide all the roots and set out each one separately. From one plant you may, in two years' time, get twenty splendid ones, and the same with the other varieties I have mentioned.

Rudbeckias, of the Golden Glow variety, grow from six to eight feet high, and must be staked, or when heavy with blossoms they will blow down or be beaten down by the rain. Each plant will bear quantities of long-stemmed double yellow blossoms, which resemble a double Dahlia. These will keep nearly a week in water. When the plant has finished blossoming, cut down the tops, and in October there will be a second crop of blossoms just above the ground.

The Golden Glow should be divided every

other year, and in this way it is even more remunerative than the Phlox. I started with fifty plants, and think it will soon be possible to have a farm of them.

LIST OF HARDY PERENNIALS, WITH HEIGHT, COLOUR AND TIME AND PERIOD OF BLOOMING, ARRANGED ALPHABETICALLY.

Aquilegia, or Columbine, all colours; one to two and one-half feet; tenth of May to first week in June.

Chrysanthemums, all colours but blue; three feet; end of September until very cold weather.

Delphiniums, all shades of blue; three to four feet; July; later crops after cutting down.

Dianthus barbatus (Sweet William), red, pink, white; one to two feet; June.

Dicentra spectabilis (Bleeding Heart), red and white; one to two feet; May.

Gaillardia, yellow, red center; two feet; July, August and September until killed by frost.

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PERENNIALS

Helianthus multiflorus plenus, hardy double Sunflower; yellow; four to five feet; all summer.

Hibiscus, pink, white; four to five feet; August and September.

Hollyhocks, all colours but blue; single, double, four to eight feet; tenth of July to middle of August; two to five stalks on a plant.

Hyacinthus candicans, white; four feet; last three weeks of August.

Iris Germanica, all colours; two to three feet; end of May to first of June.

Lychnis (London Pride), scarlet; two and one-half feet; July.

Oriental Poppy, scarlet, also pink; three feet; end of May and first of June.

Peonies, all colours but blue; two to two and one-half feet; end of May, for three weeks.

Pentstemon, many colours; three feet; August and September.

Phlox, all colours; two to four feet; early

July until killed by frost, if the heads are cut as soon as finished flowering.

Platycodon Mariesi, blue; one and one-half feet; August.

Rocket (Hesperis Matronalis), white and purple; two feet; May.

Rudbeckia (Golden Glow), yellow; five to eight feet; middle of July to September first; second crop in October.

Tritoma (Red-hot Poker Plant), orange-scarlet; three to four feet; September and October until killed by frost.

Valerian, white; three feet; May and June.

Veronica longifolia, blue; two feet; August. Yucca filamentosa, white; three to five feet; second and third weeks in July.



Vase of Canterbury Bells
June twenty-first

BIENNIALS AND A FEW BEDDING-OUT PLANTS

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CHAPTER IX

BIENNIALS AND A FEW BEDDING-OUT PLANTS

THERE are but few hardy biennials. The important ones, which no garden should be without, are: Digitalis (Foxgloves) and Campanula medium, (Canterbury Bells.)

Foxgloves and Canterbury Bells bloom in June and July for more than a month, and give a touch of glory to any garden.

Catalogues and many gardening books say that the seeds should be sown in early autumn, and the plants will bloom the following year. It is true that they will bloom when sown in the autumn, but unless kept over the winter in a cold-frame the plants will send up stalks, only about a foot in height.

Sow the seeds of Foxgloves and Canterbury Bells in the shady part of the seed-

bed in early April. Keep the young plants moist. About the fifteenth of July, if there are a large number of plants and there be no other place, they should be transplanted to the vegetable garden, where they can follow early crops of peas or lettuce. Have the ground spaded finely, and make shallow trenches, perhaps six inches deep, in which put a good layer of manure and cover this with earth, then set the plants about six inches apart. Keep them well watered when the weather is dry, and the earth thoroughly stirred. By the twentieth of September or the first of October they should be transplanted to the places where they are to bloom the following year. The plants should then be a foot across, and next June will send up several stalks about three feet high. The Canterbury Bells should be six inches across in the fall, and the next year about two feet high.

Foxgloves seed themselves with great abundance, unless the stalk is cut before the

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A single plant of Foxgloves; White Sweet William in front June thirteenth

BIENNIALS

seed ripens. In the spring I have the little plants, seeded in this way from the year before, taken from the borders and transplanted in rows, and find they are larger and stronger than any others.

Foxgloves, white, spotted and pale lilac, are the pride of the garden. Plant them back of the Sweet Williams, in clumps of six or eight, or else with Peonies. They blossom at the same time, and the pinks or reds of Sweet Williams or Peonies, with here and there a mass of white, and the tall, graceful spikes of the Foxgloves rising above them, produce so beautiful an effect that you will simply have to go and look at them many times a day.

Canterbury Bells. Let any one who has been at Oxford in June and July recall the Canterbury Bells in those loveliest of all gardens, New College and St. Johns, and she will not rest until they have a place in her garden. I did not know these flowers before going to Oxford, and after seeing them

could not wait to raise them from seed, but bought three dozen plants to look at the first year. The roots that came to me were miserable little things, and, in spite of every care, half of them died. Those which lived and bloomed were very lovely. They begin to blossom with us about the sixth of June, and last four or five weeks. In colour they are white, pink, purple and blue.

Canterbury Bells and Foxgloves are biennials. They are sown one year and grow for a year, then bloom and die. This seems a great deal of trouble for one season's flowers, but their beauty repays the gardener a hundred fold. They require a slight winter protection of leaves or stable litter, but care must be taken that the tops of the plants are not covered.

THE BEDDING-OUT PLANTS

And now a little about the only three bedding-out plants that I grow—Dahlias, Cannas and Gladioli. I should have said

THE BEDDING-OUT PLANTS

four, for there is always a large bed of about four dozen Scarlet Salvia (the Bonfire variety is the best), whose brilliant colour and sturdy growth cannot be spared. They begin to blossom in July. By driving a tall stake in the center, and other stakes around the edge of the bed of Salvia, it can be covered with burlaps or carriage covers when the nights are frosty and preserved in all its beauty until November.

Dahlias can be grown in rows in the vegetable garden, if there be no other place for them. They are decorative and desirable for cutting. Plant two or three tubers in a hill about the third week in April. They should be planted eight inches deep and three feet apart, and kept well staked. The soil should not be too rich, or they will all grow to stalk and leaf, and blossom but little. All the varieties are lovely, the Cactus kind more so, perhaps, than the others. In the autumn, when the tops have been killed by the frost, the tubers must be taken up,

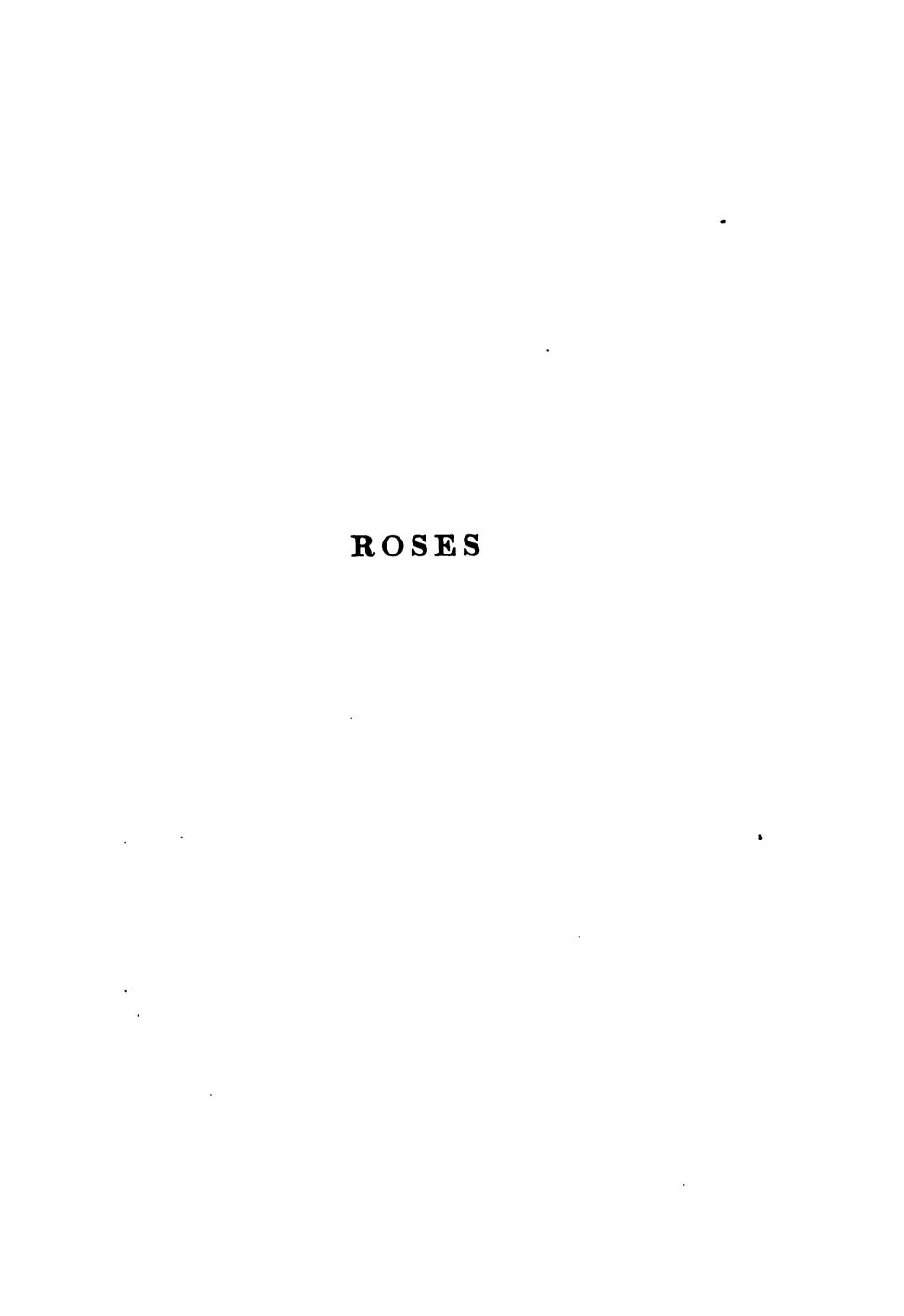
dried off carefully, and stored in a cellar that does not freeze.

Gladioli can be planted from April fifteenth to June fifteenth, in beds by themselves or in clumps in the borders, so that the blossoms may be had in succession. Gladioli come in many colours.

Cannas, the beautiful French varieties. These, of course, are most effectively grown in masses, and require full sun. The roots, like those of the Dahlias, increase so that there is almost double the quantity to plant the next spring. It is well to have the Cannas started in boxes in sunny windows, in tool-room or carriage-house, by mid-April. They can be kept through the winter with the Dahlias and Gladioli.

Vase of Foxgloves June fourteenth

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CHAPTER X

ROSES

THE Rose asserts her right to the title of the "queen of flowers" through her very exclusiveness. She insists upon being grown apart from other plants; otherwise she sulks and is coy, refusing to yield more than an occasional bloom. I speak from experience, having tried several times to grow Roses in the front of wide borders, where soil and sun and everything except the proximity of other plants was propitious. But they scarcely bloomed at all. Now, the same bushes, planted in rows so that a cultivator may be run between them, flourish satisfactorily. Grow Roses, then, in beds by themselves or in rows.

If one has but half a dozen Roses, let them be grown apart from other plants.

Pansies, however, can be grown in the Rose beds, as I have elsewhere described; Gladioli can also be planted among them without detriment to either. The reason for this is that the roots of these two flowers are not deep and do not interfere with the nourishment of the Roses.

Roses on their own roots should live for years, if given proper treatment. Witness the Rose bushes in gardens, where with but little care they have flourished more than a generation.

Budded stock must be planted very deep. The joint should be at least three inches under ground. Roses grown on their own roots are more expensive than the budded stock, but a far better investment. The budded stock is apt to send up from the parent root suckers or shoots of Sweetbrier, Buckthorn, Flowering Almond, or whatever it may be. These shoots must be carefully cut off. A friend told me that, when new to Rose growing, his bed of budded Roses

CHAPTER V

PERENNIALS AND OTHER FLOWERS

THEN one whose experience in gardening has been bounded by a few varieties of bedding-out plants like Geraniums, Coleus, Salvias, and Petunias, begins to plant perennials, she is apt to be disappointed with the first year's results. She has seen great clumps of perennials in a friend's garden, has read of their beauty, has seen pictures of them in catalogues, but when her Paeonies bear no blossoms, her Phlox has only two or three heads of bloom, the Larkspur one or two spikes of varied blue, and the Valerian, Veronica, Monkshood, and Hollyhocks all flower sparingly, she cries in her heart for the bedding-out plants which were her mainstay in former years. Let her have patience, however, and

sent up so many strange shoots that, not knowing what to do, he dug them all up but one. This he kept as a curiosity, and now it is a bush of Flowering Almond six feet in circumference.

Everblooming Roses should be set out in the spring, about the middle of April.

Hybrid Perpetual and Hardy Roses are best set out in autumn, about October tenth. When planting, always cut the plants back to about a foot in height.

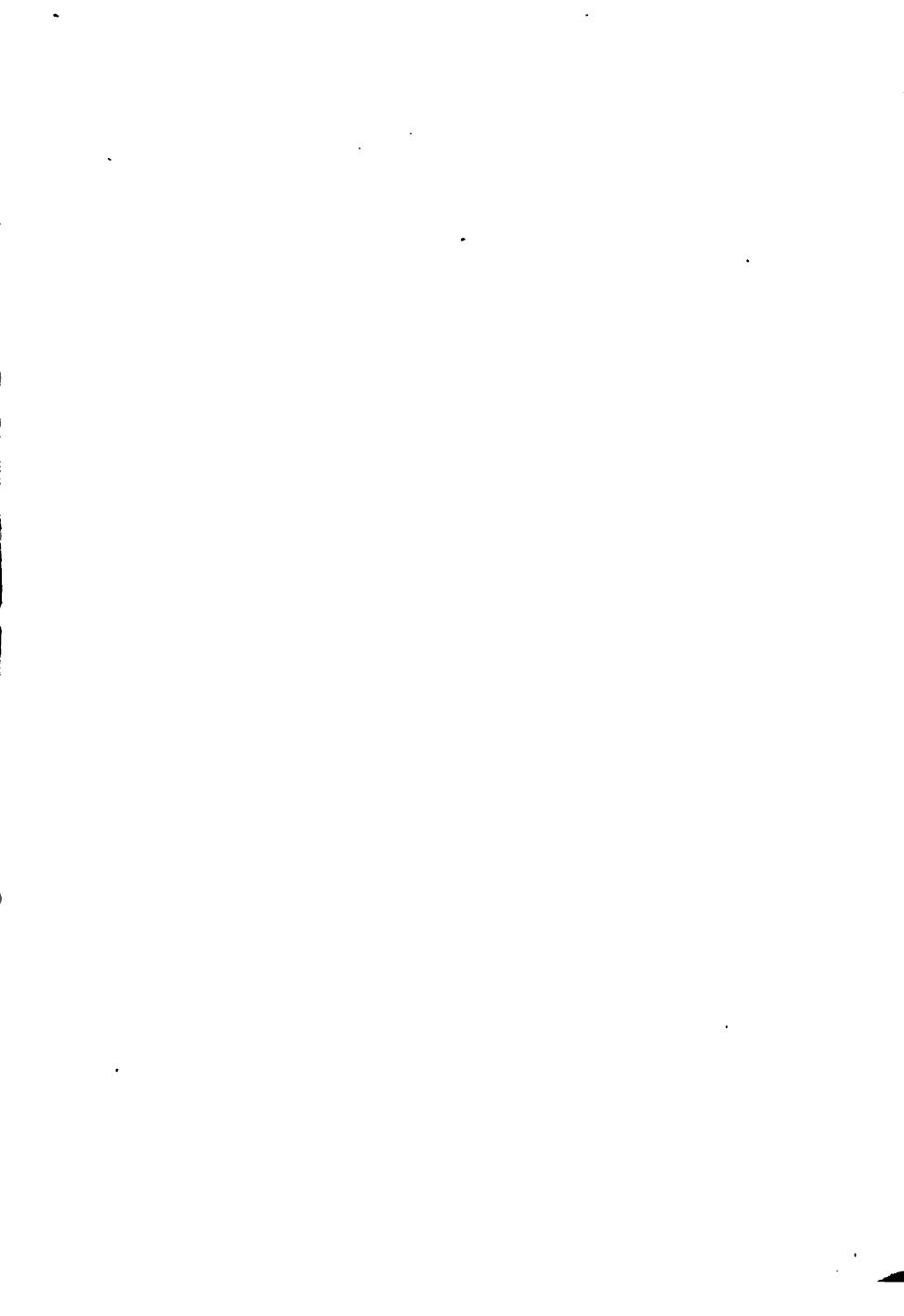
All Roses should be lifted every three years, late in October, and plenty of manure, with fresh earth and leaf-mould, mixed with sand if the soil is heavy, dug in.

After five or six years I dig up my Roses about October tenth, cut the tops down to about twelve inches, cut out some of the old wood, cut off the roots considerably, trench the ground anew, and replant. The following year the Roses may not bloom very profusely, but afterwards for four or five years the yield will be great. My physician in the

country is a fine gardener, and particularly successful with Roses. We have many delightful talks about gardening. When I told him of my surgical operations upon the Roses he was horrified at such barbarity, and seemed to listen with more or less incredulity. So I asked him if, as a surgeon as well as physician, he approved, on occasion, of lopping off a patient's limbs to prolong his life, why he should not also sanction the same operation in the vegetable kingdom. He was silent.

I shall not say much about Roses, because there is so much to say. They need a book by themselves, and many have already been written. In my garden there are not more than five hundred Roses, including the climbing varieties. They have done very well, and have not been given more care than other plants.

For years I did not grow Roses, fearing they would not be a success. I had read about the beetles and spiders and other



Rose - bed carpeted with Pansies June twenty-first creatures that attack them, and dreaded the spraying and insect - picking that all the books said must be done. But, of course, I finally yielded to the temptation of having the very flower of all flowers, in my garden, and have found the trouble slight and the reward great. I have them in beds in a little formal garden, and in rows in a picking garden.

The beds and the trenches for the rows are both made in the usual way, and every fall, in late October, before the Pansies are set out as already described, manure is dug in, and in the early spring, about the tenth of April, a handful of finely ground fresh bone-meal is stirred in around each plant with a trowel. They are sprayed with slugshot three times between April tenth and May fifteenth, when they get a thorough spraying with kerosene emulsion, and, as a result, my Roses are not troubled with the usual pests.

In November the hardy perpetuals are all

cut back to about two feet in height, and the old wood is thinned out. The everblooming Roses are cut back to a foot in height. And Roses! well, really, no one could ask better from a garden. I have not many varieties, but when I left the country last fall, the tenth of November, although ice nearly an inch in thickness had formed, there were Roses still in bloom in the garden.

The very hardy Roses, which, with a few exceptions, bloom only in June and early July, with an occasional flower in the autumn, should be planted together, as they need but slight covering. In late November the hardy ones get about a foot of stable litter over the beds. The everblooming kinds have six inches of manure, then a foot of leaves, and then a good covering of cedar branches over all. But cover late and uncover early (the very minute the frost is out of the ground), or your Roses will die.

If asked to name, from my own experience, the best dozen Roses, I should say the

following were the most satisfactory: General Jacqueminot, Jubilee, Ulrich Brunner, Madame Plantier, Clothilde Soupert, Kaiserin Augusta Victoria, La France, Mrs. Robert Garrett, Princess Alice de Monaco, Soleil d'Or, Perle des Jardins, and Mrs. John Laing or Baroness Rothschild. Paul Neyron and Prince Camille de Rohan might also be added to the list.

Between Mrs. John Laing and Baroness Rothschild, it is a toss-up. Mrs. John Laing is a healthy, strong Rose, and a most constant bloomer. But none that grows is more beautiful than the Baroness Rothschild. Rather a shy bloomer; still each Rose, on its long, strong stem, surrounded by the very fine foliage that distinguishes this variety, makes a bouquet in itself. Baroness Rothschild is also vigorous, and I have never seen it attacked by the enemies of most Roses.

Climbing Roses have so much use, as well as beauty, in a garden, that my advice is, wherever there is an excuse for having one,

plant it there. They do finely on the south side of a house, on arches, summer-houses and trellises. I have a trellis along one side of a grass walk three hundred and fifty feet long. At each post are planted two Roses, a Crimson Rambler and a Wichuraiana. The Wichuraiana blossoms when the Rambler is done. Imagine the beauty of this trellis when the Roses are in bloom! On the other side of this walk there is a border four feet wide, with shrubs at the back, filled, all of the three hundred and fifty feet, with many varieties of perennials, also with Lilies and annuals planted in wherever a foot of space can be found.

All of the Ramblers are good, but none blooms so luxuriantly as the crimson. The Climbing Clothilde Soupert, Baltimore Belle and Climbing Wootton are also fine. Of the Wichuraiana Hybrids, Jersey Beauty and Evergreen Gem are the best. The foliage is lovely, and the perfume of the flowers delicious.



ANOTHER HARDY GARDEN BOOK

edges of shrubberies. They grow from four to six feet in height, and from the middle of August to the middle of September are a mass of blossoms which are quite like the small wild Asters. The white variety is Boltonia glastifolia, and the pale pink, Boltonia latisquama.

Besides the Boltonias, the following hardy plants flourish and look well on the edges of shrubberies: Boconia cordata; Hollyhocks; Jerusalem Artichoke, which grows eight feet tall and bears single yellow flowers late in September and through October; Marshmallow (Hibiscus moscheutos); Japanese Tree Paeonies; Columbines; Trilliums; Oriental Poppies, and hardy Sunflowers. Various clumps of these plants will give successive bloom and color in front of the shrubbery from May until November.

Several years ago, when planting a new garden I decided to have the flowers in each border of one color only. A friend to

ROSES

The Climbing Roses should be yearly enriched in the spring with manure and bonemeal, and, after two years, some old wood should be cut out every autumn. Many of the Crimson Ramblers and Wichuraiana in my garden made growth last summer of splendid great canes, larger around than one's thumb and from ten to fourteen feet long. Monday was the day for tying and training the Roses, and often it seemed impossible for them to grow so much in a week. It would have been incredible, had we not the actual proof before our eyes.

LIST OF HYBRID PERPETUAL AND HARDY ROSES BLOOMING IN JUNE, WITH AN OCCASIONAL BLOOM IN SEPTEMBER

Red

General Jacqueminot.

Prince Camille de Rohan, (darkest Rose of all).

Jubilee.

Baron Bonstetten.

General Washington.

John Hopper.

Ulrich Brunner.

Victor Verdier.

Pink

Mrs. John Laing (constant bloomer).
Anne de Diesbach.
La France (blooms all summer).
Magna Charta.
Mme. Gabriel Luizet.
Baroness Rothschild.
Paul Neyron.

White

Margaret Dickson.
Coquette des Alpes.
White Maman Cochet (blooms continually).
Madame Plantier (blooms continually).
Coquette des Blanches.
Mme. Alfred Carriere.
Marchioness of Londonderry.

Yellow

I know but two hardy yellow Roses:

The Persian Yellow.
Soleil d'Or.

The monthly or everblooming Roses, which need very heavy covering in winter, should be planted together. The following are a few of the best and most constant bloomers:

Kaiserin Augusta Victoria, white. Bride, white.

ROSES

Clothilde Soupert, white with faint blush center.

Madame Hoste, creamy white.

Perle des Jardins, yellow.

Sunset, yellow.

Mlle. Germaine Trochon, yellow.

American Beauty, rich crimson.

Marion Dingee, deep crimson.

Souvenir de Wootton, crimson.

Bridesmaid, pink.

Hermosa, pink.

Madame de Watteville, pink.

Burbank, pink.

Mrs. Robert Garrett, pink.

Princess Alice de Monaco, petals white, edged with blush-pink.



LILIES

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CHAPTER XI

LILIES

Lilium auratum (Auratum Lily), the grandest of all Lilies, disappears after a few years. If large-sized bulbs are bought there will be the first year from twenty to thirty Lilies on a stalk four feet high, the second year seven to ten, the third year perhaps two or three, but oftener none at all. If you then dig for the bulb, lo! it is gone. The expense, therefore, of these Lilies is great, from their having to be often renewed. Still, do not fail to have them, if possible, for nothing can take their place. They bloom from the middle of July for about a month.

I wrote to an authority on Lilies to ask the cause of this disappearance. He told

me that, as soon as planted in this country, a microbe disease attacked them and they gradually disappeared under its ravages. Botanists surely should find a specific, or antidote for this; but perhaps, like some of the most terrible diseases of the human being, it evades all research. Miss Jekyll, in her book on Lilies for English Gardens, in speaking of *Lilium auratum* says:

"This grand Lily, well planted, and left alone for three years, will probably then be at its best. After this the bulbs will be likely to have increased so much that it will be well to divide them."

This would seem to imply that the Auratums thrive in England. Well, they have climate in England, even if we have weather, and English gardens will always fill American gardeners with despair.

Lilium candidum, which blooms before the other Lilies, is hardy and fragrant and increases rapidly. These Lilies must have full sun and light soil. About every three or four

Lilium auraium growing behind Peonies and Columbines that bloomed earlier August tenth



LILIES

years they can be separated, which should be done as soon as the stalks turn yellow, as the bulb makes an autumn growth. For, this reason the Candidums must always be bought and planted by the tenth of September. Other Lilies may be planted in the spring, when the frost leaves the ground, or in October.

Lilium speciosum rubrum thrives and increases in our climate, needs a partly shaded location and, therefore, does well when planted among Rhododendrons. It blooms after the Auratum, the end of August and first two weeks of September.

Lilium speciosum album blooms at the same time as Lilium rubrum. It is a beautiful pure white Lily with wax-like curved petals, grows best in full sun, and averages six Lilies on a stalk, although I have often counted more.

Lilium longiflorum blooms early in July. These lilies are very much like the Bermuda Lily, except that they have, as a rule, about

four blossoms on a stalk, and are hardy. In my garden they have not increased.

. Hansoni, a Japanese Lily, flowering in June; bright yellow in color; perfectly hardy and very desirable.

Lilium Canadense (the Meadow Lily), yellow, red and orange, increases, and is very satisfactory, but likes as moist a situation as possible.

Tigrinum, the old Tiger Lilies, both single and double. These bloom in July, increase rapidly, and by planting, when fully ripened, the little black bulbils which form on the stalk, any number of bulbs can be raised.

Funkia subcordata is the old-fashioned white Day Lily of our grandmothers' gardens. The broad leaves of this plant are almost as handsome as the spikes of bloom. These Lilies flower best when grown in the sun, but then the leaves turn yellow—so give them a partly shaded place.

Funkia cærulea, with the blue blossom,

LILIES

is worthy of a place in the garden, though far from being as effective as the whiteflowered variety. I also grow the kind with the small white and green variegated leaves for the sake of the foliage, so useful in house decoration.

Funkias are not, botanically speaking, Lilies, but are mentioned in this chapter because popularly known as Day Lilies and on account of the lily-like form of their blossoms.

Lily-of-the-valley should have a place in every garden. Absolutely hardy, requiring no care, it blooms prolifically in early May, fills the air with its fragrance, and is beloved by every one. The German name for this flower, Mai Glöcken (May Bells) is particularly appropriate. I have heard of one woman whose bed of these flowers, four feet by fifty feet, has yielded as many as twenty thousand sprays in one season. The pips can be set out the end of October or the beginning of November. If the bed is quite

large, when the Lilies have finished blooming, some can be lifted here and there and transplanted. As the pips increase rapidly, their places will soon be filled. Lilies-of-the-valley do best in a partially shaded place, and require a deep, rich soil, well mixed with leaf-mould.

A Lily bed should be prepared, if the place is damp and drainage not good, by digging out the soil for three feet, and putting a foot of cobblestones in the bottom; then fill up with a mixture of good soil, leaf-mould and sand, and very old, well-rotted manure. In the ordinary garden that is not wet, two feet are enough to dig out the bed, and the cobblestones can be omitted. Lilies should always be set with a handful of sand around the bulb, to prevent any possibility of manure coming in contact with it, as the manure will destroy the bulb.

In my garden there is no special place prepared for the Lilies, but they are grown in



LILIES

all the borders, the Rubrums in the shade, the others in the sun, and this year there have been thousands of them. If there are no woods near, where the men can gather leaf-mould, have the rakings of the autumn leaves put in a pile, cover with boards, and occasionally during the spring and summer have them well forked over; the next autumn there will be a quantity of the finest thing for Lilies, Rhododendrons, Ferns, or indeed any kind of plant. This should be mixed in a pile in the proportion of one wheelbarrow of mould, two of good soil, two coal-scuttlefuls of wood ashes, one-half barrow of old manure and two spadefuls of fine bone-meal. There is also nothing better for the Roses than some of this mixture.

All Lilies do better if well mulched with clippings of lawn grass or with very old manure.

The varieties of Lilies mentioned are the easiest grown and the most satisfactory.

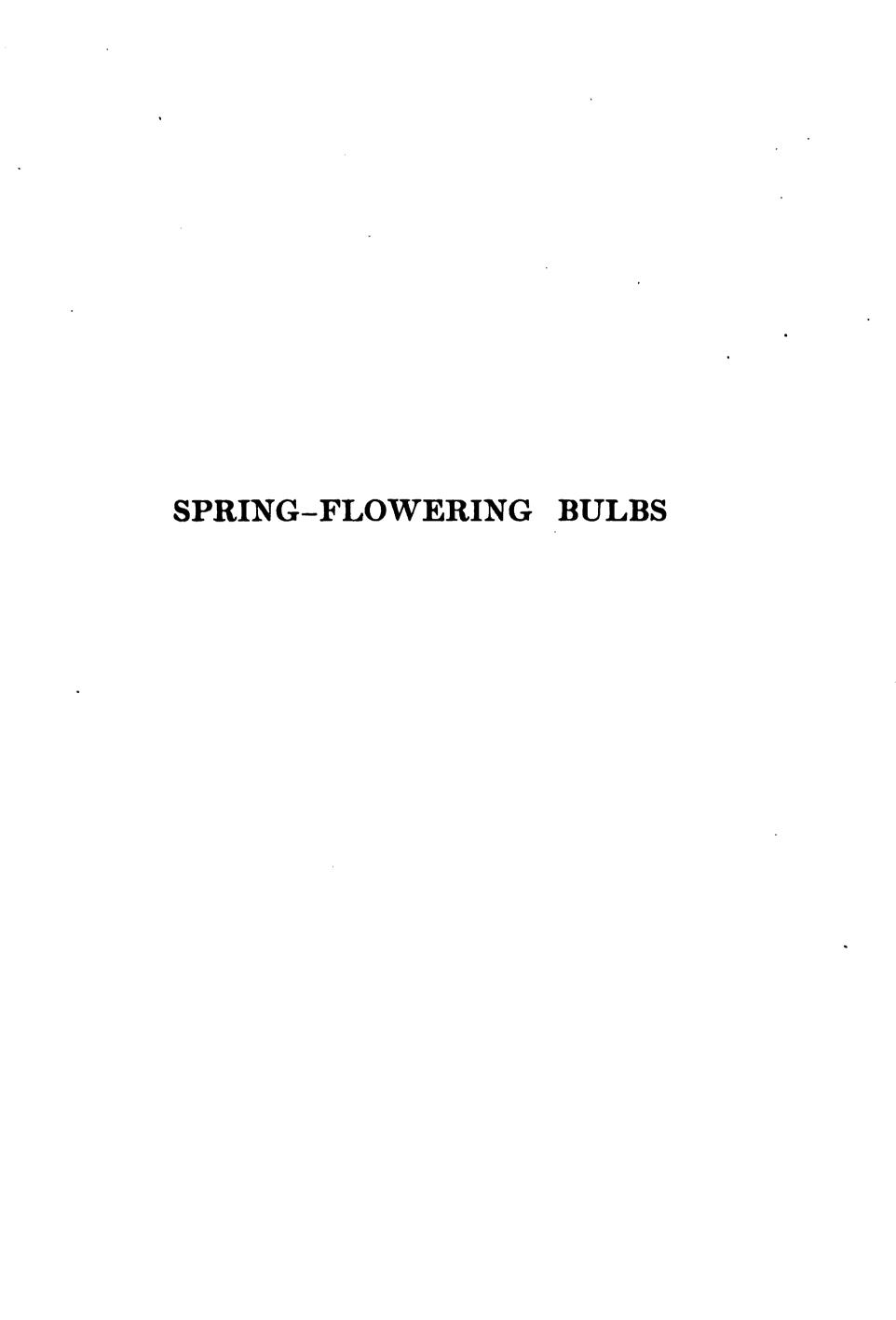
Lilies should always be planted in clumps

of the same kind—never less than six, and the number increased according to the size of the garden. Alternate clumps of a dozen each of Lilium auratum and Lilium album planted in a border just behind Foxgloves and Canterbury Bells will come into bloom when these two biennials have finished, the Auratum first, then the Album; these four flowers will keep the border gay from early in June until the middle of September.

Lilies should be planted about eight inches deep, and have a covering of litter late in the autumn.

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Vase of Lilium speciosum album and rubrum
September sixth





CHAPTER XII

SPRING-FLOWERING BULBS

BULBS can be planted at any time in the autumn before the ground freezes; the first week in November is as good a time as any. The cost of Tulips, Narcissi and Daffodils is not great. They multiply and need not be disturbed for three or four years.

Snowdrops. The earliest of all flowers to bloom is the Snowdrop. After the long, cold winter, with the melting of the snow and the first suspicion of milder air, these frail beauties send up their graceful bells of white. With what triumph the first one is found and brought to the house, and what a thrill of joy it gives to know that spring will soon be here! Snowdrops can be planted thickly in the borders and also, like Crocuses, in

the grass. The foliage of both will die before it is time to mow the lawn.

Crocuses, which should be planted in the grass, will begin to bloom as soon as the Snowdrops pass. The gay little things make the lawn, while still brown, a carpet of bright colors. I heard of a gentleman who planted ten thousand of them in this way, and was rewarded by a most beautiful display at a time when there were no other flowers.

Tulips I plant everywhere in the borders about four inches apart, all kinds, such as single, double, Gesnerianas and Parrot Tulips; but always a quantity of only one kind together. The bed where later the Salvias are put, has three hundred Golden Yellow Tulips. When these have faded, the Salvia plants are set out in the same bed, without disturbing the bulbs. This can be done if the men are careful, and when the Tulip leaves are quite yellow they are cut off (for unless allowed to ripen the bulb does not grow and mul-



Garden arch, covered with Japanese gourds August twenty-seventh

SPRING-FLOWERING BULBS

tiply.) Every three years all Tulips are dug up in the autumn, after the Salvias have died; the bed is then made very rich, and the Tulips reset. There are generally more than enough to refill the bed. The same treatment is pursued in the Canna bed, only here the Tulips are double white.

Tulips will bloom from April twentieth until the last of May, if both the very early as well as the late kinds are planted. The late varieties are the Parrot and Gesneriana, which latter grow two feet high and are very showy.

I have been constantly surprised to find that many good gardeners take up all bulbs when through flowering in the spring, store through the summer and replant in the autumn. This is not only unnecessary, but it is better for the bulbs to remain in the ground as nature intended. Mine have always been so treated and have been successful.

In planting bulbs in newly prepared soil, great care must be taken that they do not

come in contact with manure. To prevent this, the man should have a box of sand, in a handful of which each bulb should be set. Spring flowering bulbs should be planted about four inches deep.

Poeticus Narcissus and Daffodils, both single and double, do well when naturalized in grass that need not be cut until the foliage of the bulb has died in June. They also make a very good edging for a border along a walk.

The single Van Sion and Emperor Narcissus are excellent varieties. The old-fashioned sweet-scented Jonquil and double Van Sion, or Double Yellow Daffodil, are as satisfactory as any of the numerous kinds named in the catalogues. One early spring, the Double Yellow Daffodils were all in bloom on the tenth of April.

Narcissi and Daffodils live for generations. I know some double yellow Daffodils growing in my great-grandfather's garden, that were planted over seventy years ago. The place was

SPRING-FLOWERING BULBS

sold and the house burned about thirty years since, and all this time has been entirely neglected. Some one told me that Daffodils and Narcissi still bloomed there bravely in the grass. With a cousin, one lovely day last spring, I took the train out to this old place and there found quantities of the dainty yellow flowers. We had come unprovided with any gardening implements, having nothing of the kind in town, and brought only a basket for the spoils, and a steel table-knife. We quickly found the knife of no avail, so borrowed a sadly broken coal-shovel from a tumble-down sort of a man who stood gazing at us from the door of a tumble-down house. The roots of the Daffodils were very deep, and neither of us could use a spade, so the driver of the ramshackle wagon taken at the station was pressed into service. Handling of shovel or spade was evidently an unknown art to him. The Daffodil roots were nearly a foot deep, but we finally got them, several hundreds of them, all we could

carry. The driver seemed to think us somewhat mad and said "Them's only some kind of weed," but when I told him the original bulbs from which all these had come were planted by my great-grandmother and her daughter, and that I wanted to carry some away, to plant in my own garden, he became interested and dug with all his heart. The bulbs were in solid clumps a foot across and had to be pulled apart and separated. They were the old Double Yellow Daffodil and a very large double white variety, the edges of the petals faintly tinged with yellow and delightfully fragrant. My share of the spoils is now thriving in my garden. the process of division every three years, these Daffodils can be made to yield indefinitely, and perhaps some great-grandchild of my own may gather their blossoms.

Hyacinths, too, should have a place in the spring garden. They are more expensive, as a rule, than Tulips, Narcissi and Daffodils, but, in large or small quantities,

Vase of Phlox; single blossoms actual size August second

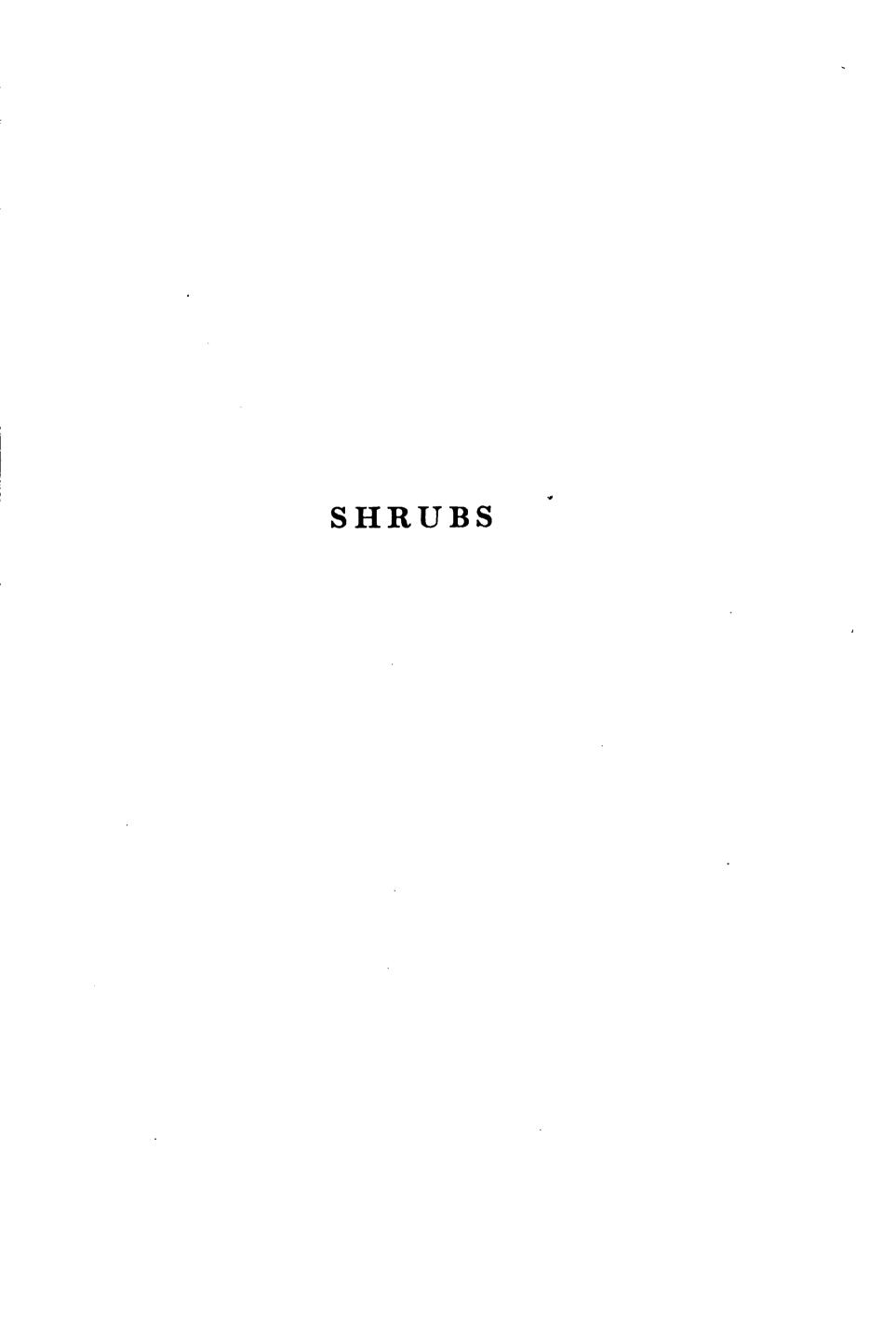


SPRING-FLOWERING BULBS

are well worth the money. The single varieties are generally preferred, while, of all kinds, the white and pale blue are the loveliest.

Nothing in the garden gives so much pleasure as the early spring flowers. Perhaps this is because they are the first to bloom. Every one knows how beautiful the first lovely Dandelion seems, gold-starring the new grass. Many bulbs can be had for little money, and I would say to all, plant as many as you can squeeze in. From April fifteenth to May fifteenth I receive in town, twice a week, great boxes of spring flowers from my garden, enough each time to fill sixteen to twenty vases; yet my orders to the men are to cut always so that the flowers cannot be missed from the garden.





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Spirms Van Houttei May thirty-first

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CHAPTER XIII

SHRUBS

F the hundreds of shrubs, comparatively few survive the severe winter climate of interior New York, or grow very luxuriantly.

Lilacs of all varieties, white and purple, single and double; Deutzias, white and pink; and Syringa, the improved large-flowered variety, are most beautiful. Spiræa Van Houttei, sometimes called Bridal Wreath, with its long trails of white blossoms; and Viburnum plicatum, or Japanese Snowball, which in late May bears a ball of bloom on every twig and is both healthy and hardy, are also desirable shrubs. The old variety of Snowball is attacked by a blight, the leaves curl up and grow black and the blooms are imperfect. A few years ago I dug up all of mine and burned them.

Altheas, or Rose of Sharon,—not by any means the old purplish red variety, but the beautiful new double white and double pale pink kinds, with blossoms coming in August and reminding one of Camellias,—are indispensable. Do not fail to have *Hydrangea paniculata*, with its great heads of white bloom, slowly changing to dull pink, and lasting quite six weeks.

Japanese Barberry, a dwarf shrub, covered in autumn with scarlet berries which remain on the bush all winter, is very ornamental. Many of us remember Calycanthus floridus, or the Sweet-scented Shrub of our young days, when the children would tie two or three of the queer brown blossoms in the corner of a handkerchief to regale their less fortunate companions with a sniff of the delicious odor. Forsythia and Laburnum, or Golden Chain, both have yellow blossoms. Others are, Weigela Rosea, the well-known pinkflowering shrub; Rhus Cotinus, or Purple Fringe, and Cydonia Japonica, or Japanese



ANOTHER HARDY GARDEN BOOK

Scarcely did I dare all Summer to think of this garden, and no mention of it was made in any letters received, so that upon our return the middle of September I went to look at it, expecting to see a bare expanse. broken by dead evergreens and brown Boxedging; but the rains had begun the very day we sailed, and the Summer had been cool with frequent rains.

It was just sunset when we reached home that September day, and as I stood on the marble steps, looking down upon what my imagination had portrayed as a dead garden, it seemed as if a miracle had been wrought. The evergreens were green and flourishing, the Box-edging was covered with tender shoots of new growth, the grass of the paths was thick and free from weeds and the beds were filled with blooming Asters, of which there were certainly hundreds in each bed, and although three colors had been used, white, palest pink, and faint blue, each bed contained but one variety.

SHRUBS

Quince, deep rose-pink, flowering early in the spring.

These all yield beautiful flowers, beside being hardy and of rapid growth.

All shrubs should be trimmed as soon as they have finished flowering, but only enough to prevent their becoming spindling, with the exception of *Hydrangea grandiflora*, which should be trimmed back, at least three-quarters of the new growth, every year.

It is important, also, to thin out the old wood of most shrubs after five or six years.

Shrubs can be grown from cuttings if one has patience to wait for the result. But as it takes from three to four years' time and considerable care to grow a shrub that would cost but twenty cents, for which price many varieties of shrubs can be bought, few people care to raise them.

On a large place it might be worth while to raise shrubs from cuttings. And where there is plenty of space, a small nursery of them might be kept.

tive when grown in masses of a dozen or more, although single specimens are very fine. They must be vigorously cut back late every fall, leaving only about six inches of new growth.

Lilac, common purple and common white; also Marie Legray, a fine white Lilac, and Madame Lemoine, a new double variety bearing very large trusses of flowers. All of these varieties of Lilac grow high and rapidly—frequently eight feet in six years. They require little or no pruning. It is sufficient to cut the blossoms either before or after they go to seed.

Lonicera rosea and Lonicera albida, upright Honeysuckles, in shrub form, vigorous, quick-growing, requiring but slight pruning in late autumn. They flower in May, and in midsummer are covered with beautiful berries.

Magnolia conspicua, with large white blossoms, blooms the middle of April; Soulangeana has large pink flowers and blossoms

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Vase of Hydrangen panioulatu grandifora September tenth

SHRUBS

the end of April. Magnolias should be pruned when set out, and should be moved only in spring.

Philadelphus syringa, or Mock Orange; grandiflorus is the finest. The flowers are pure white, very fragrant and bloom about the middle of June. The shrub grows high, is perfectly hardy and in every way satisfactory. It should be trimmed as soon as it has finished blossoming. Cut back about three-quarters of the new growth; it will then send out side shoots and become continually thicker.

Privet. The common Privet is of very rapid growth and excellent for a screen. It should be trimmed the end of June, but only enough to prevent its becoming scraggly. The California Privet is not so hardy.

Rhus Cotinus, popularly known as Smoke Tree or Purple Fringe, grows as high as a small tree and requires almost no pruning. In midsummer it is covered with fine, mist-like, purple flowers.

Spiræa Van Houttei. This is one of the most satisfactory shrubs; is rather dwarf in habit, growing about five feet high. The end of May it is covered with clusters of white flowers on long, pendulous branches. Trim as soon as it has finished blooming, cutting off about half of the new growth.

Spiræa Anthony Waterer, another Spirea, very dwarf, only about a foot in height, and covered with bright crimson flowers from June to October.

Viburnum plicatum, Japan Snowball, one of the finest shrubs. It grows about six feet high, and is completely covered with its balls of snow in early June. It requires comparatively little trimming.

Weigela.—The two most satisfactory varieties of this shrub are Candida, whose blossoms are white, and Rosea, with pink flowers. They bloom most freely about the tenth of June, when each shrub becomes a mass of flowers. Care must be taken to cut out the old wood from time to time,

SHRUBS

and to trim after the shrub has finished blooming.

A Few Evergreen Shrubs

Of evergreen shrubs, Kalmia latifolia, or Mountain Laurel, is most satisfactory, growing three to four feet high. It is covered in early June with large clusters of pale pink and white flowers.

Rhododendron maximum, the large-leaved hardy American variety. Under cultivation this shrub seldom grows more than six feet high; in the woods it is found much larger.

Japanese Holly, a dense-growing shrub about four feet high, with deep glossy green foliage.

Tree Box, generally trimmed in standard or pyramidal form and very slow-growing.

PERENNIAL VINES AND CREEPERS

Ampelopsis quinquefolia, Virginia Creeper.

Ampelopsis Veitchi, Boston Ivy.

Aristolochia Sipho, Dutchman's Pipe.

Bignonia radicans, Trumpet Creeper.

Clematis paniculata, clusters of fine white flowers.

Clematis Henryi, large white flowers.

Clematis Jackmani, large purple flowers.

English Ivy.

Honeysuckle, Hall's Japan, Golden Japan. Hops.

Vitis Coignetiæ, Japanese ornamental grapevine; rapid grower.

Wistaria, both purple and white.

A Few of the Best Annual Vines

Cobæa scandens, purple and white.

Moonflower, white.

Japanese Morning-glory, all colors.

Passion Flower, blue and white; must be started very early, and if well protected will sometimes survive the winter.

Japanese Gourd. This must be descended from Jonah's Gourd of biblical fame, as it often grows from forty to fifty feet in a summer. It has yellow flowers and gourds, and is very decorative.

WATER, WALKS, LAWNS, BOX-EDGINGS, SUN-DIAL AND PERGOLA



CHAPTER XIV

WATER, WALKS, LAWNS, BOX-EDGING, SUN-DIAL AND PERGOLA

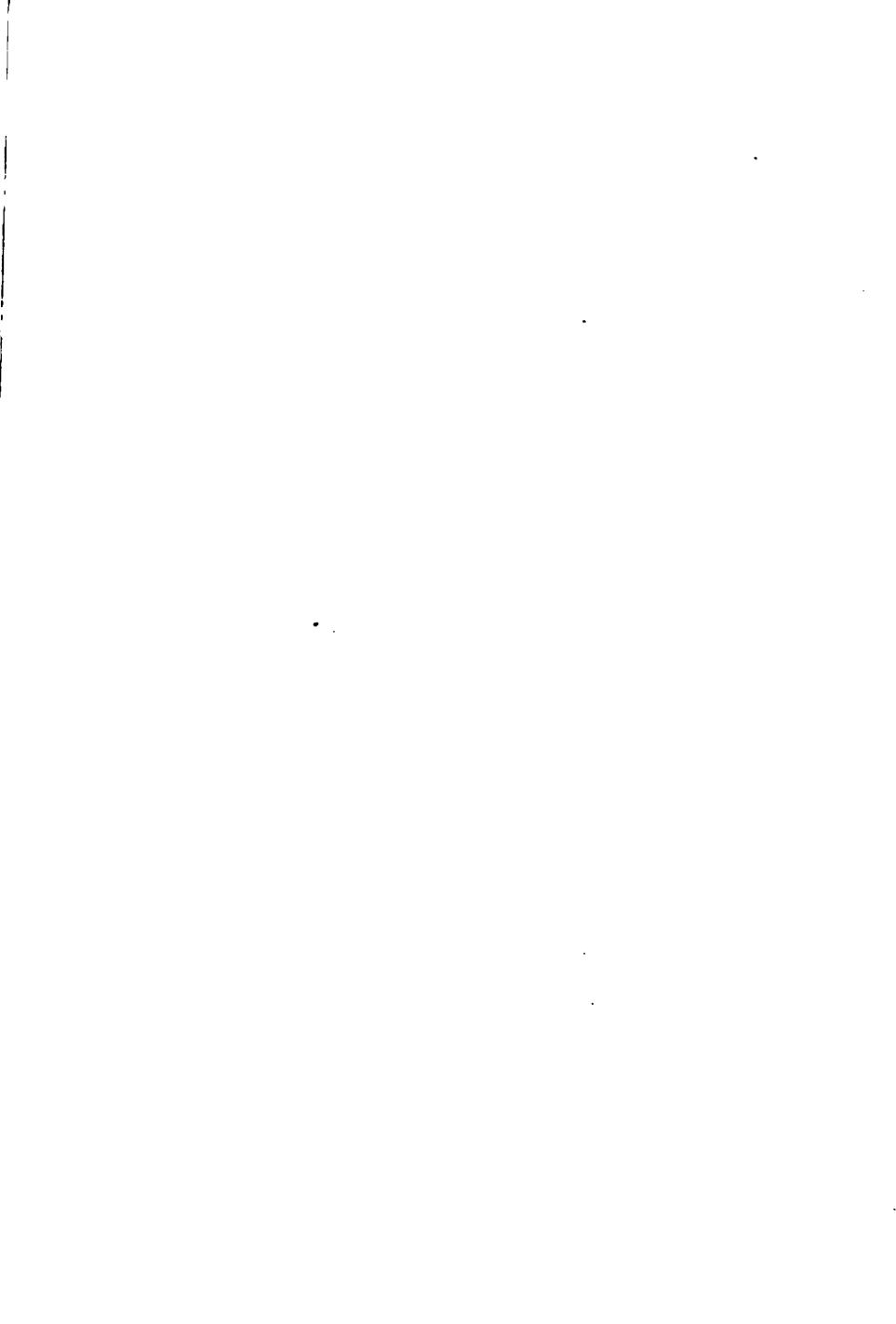
T is not advisable to arrange for a garden of any size without considering the question of water. Within the limits of a town supply there is only the comparatively simple matter of laying the pipes. But when the place is dependent upon its own water system, the amount to be counted upon and the situation of the garden with reference to the source of supply must be seriously considered. If possible the garden hydrants should not be more than fifty feet apart. This greatly facilitates watering. When further apart, plants are in danger of being injured by the unwieldy hose. A nozzle that will regulate the flow of water from a fine spray to a strong stream will be found convenient.

Opinions differ upon the best way to lay water-pipes through a place, some preferring to put them but a foot under ground, and turn off the water in winter; others lay them in trenches three and a half to four feet deep, so that they are beyond all danger from frost. This latter plan was followed in my garden and I recommend it as being most satisfactory.

The watering of a garden requires nearly as much judgment as the seasoning of a soup. Keep the soil well stirred and loose on the surface, going through the garden, where possible, with a rake; and if there is no room for a rake, stir gently with a trowel every five days or once a week. In this way moisture will be retained in the soil, since the loose earth acts as a mulch.

When watering, be generous. Soak the plants to the roots; wet all the earth around them, and do it late in the afternoon, when the sun is low. How often have I been obliged to chide the men for watering too early in the afternoon, and not doing it thor-

Vase of double hardy Sunflowers (Helianthus multiflorus plenus)
September fifteenth



WATER—WALKS

oughly, for, upon stirring the ground, I would find that the water had penetrated but a couple of inches. During long periods of dry weather, the garden, without water, will simply wither and burn.

Rhododendrons, Ferns and Lilies suffer in dry time, even though well mulched, and must be kept moist.

Japanese Iris blooms but indifferently unless quite wet.

When dry weather continues for a long period I divide the garden into three parts; one part is thoroughly watered every evening, and the following day the soil is stirred. In this way the plants suffer comparatively little. For years we had no water supply through the gardens, and really, in dry weather, life had no pleasure for me because of my unhappiness at the sight of the withered garden. I would drag watering cans about, and beg and bribe all the family to do likewise. Every afternoon, about five o'clock, one of the men would fill eight ten-

gallon milk-cans with water, put them in a wagon, and drive about the place watering the flower beds and borders. Frequently he would fill these cans three times in one afternoon. This, as may be imagined, was slow and unsatisfactory work, and, except in the case of a small garden, is too great a task.

Often in a dry time, after dinner, I bethink me of the Rhododendrons or Ferns or Iris, or some other plants to which drought means death, and I feel sure "that boy has not watered them enough." Then, in ten minutes the garden skirt, shoes and gloves are on, and those thirsty plants get a drenching to their very roots such as they would never receive from any perfunctory "boy" or gardener. I go to bed warm and weary, yet sleep is sweet from satisfaction at the thought of the garden's happiness.

WALKS

Unquestionably, walks near the house should be graveled; they naturally have too

WATER—WALKS

hard usage to keep turf in good condition. Graveled walks should be dug out a foot or more in depth, filled in with broken stone, this covered well with coarse gravel, and finished with a coating of a couple of inches of whatever fine gravel is chosen. A walk thus made will be dry and well drained and weeds have little chance to grow.

The most beautiful walks of all are those of grass. Strange to say, they are seldom seen in this country. Through any garden, some little distance from the house, where they will be walked on only by those going to the garden, the turf-walks, with ordinary care, will last well, require only the usual cutting with the lawn-mower, and, especially if edged with Box, should be the very pride and joy of the possessor's heart.

The ground for such walks should be spaded deeply with plenty of manure, raked carefully and made very smooth. Prepare in September, and by the fifteenth or twentieth sow, very thickly, a mixture of one-

third each to the bushel of Kentucky Blue Grass, Long Island Bent Grass and Red Top. Roll thoroughly, and if the weather be dry have the newly sown paths sprinkled daily and kept moist. The tender grass should appear in two weeks, and will continue to grow during October.

About Thanksgiving time of the first year, cover with a layer of straw, and uncover about the twenty-fifth of March. At this time it is well to sow thinly some more grass seed of the same kinds, and again roll, the reason for the additional spring sowing being to replace any of the grass that may have been winter-killed. About the twentieth of April spread cotton-seed meal, the best of all fertilizers for grass, all over the paths. For years we have had the lawns covered with stable manure in February and raked off the first of April, and for years I have waged war with the weeds and wild grasses. But sow cotton-seed meal early in April, and if possible give the paths

Vase of Monkshood September thirtieth



LAWNS—BOX-EDGING

a little wood-ashes in June; the result will be a hundred per cent better than from the use of manure. Cotton-seed meal should not be sown too thickly, and wood-ashes must be spread thinly, so as not to burn the grass.

The men tell me that a sharp-pointed mason's trowel is more satisfactory than any other tool for removing weeds from the lawns and grass paths. If this is carefully attended to the end of May, and again the latter part of June, and only artificial fertilizer used, there will be but little trouble with weeds in the grass.

BOX-EDGING

Box edging should be set out in the spring, that it may be thoroughly rooted before winter.

Great care must be taken in setting out the Box, that the row be absolutely straight and even. The garden cord is carefully stretched; a shallow, narrow trench is dug

with the spade, and then the little plants are placed about three inches apart, each plant against the string. The trench is half filled in with earth, then a layer of manure, and finally more earth packed down. Box planted in this way should grow and thrive, especially if given, along in May, a little bone-meal.

I write feelingly of Box edging to-day. Last week, Holy Week, I spent in the country, and most of my time was passed on my knees. For, when not at church or driving the intervening five miles, I was setting out plants in the garden, and that, like one's prayers, requires kneeling. Four men were working, setting out plants and trees, but the earth was so sweet and warm and brown that it was impossible to keep away from it. With trowel in hand and joy in my heart, I set out hundreds of little Box plants, transplanted Columbines, Foxgloves and Canterbury Bells. Big robins were hopping tamely about, calling to one another;



Sun-dial in center of formal garden August second

LAWNS—BOX-EDGING

blackbirds and meadow-larks were singing their refrains; the brave plants were pushing their way through the earth to new life, and I thought how good it was to be alive, to have a garden to dig in, and, above all, to be well and able to dig.

With work in the garden care and worry vanish. The cook (as some cooks of mine have done) may announce that "'tis a woild waste of a place. I be lavin' the mornin'." The hamper of meat does not arrive on the one train from town, or somebody smashes something very dear to your heart,—just go to the garden, tie up some Roses or vines, or poke about with a trowel, and though murder may have been in your thoughts, in half an hour serenity will return. And what does it all matter, anyway? Another maid can cook for a few days, and there are always bacon and eggs.

Philosophy is inevitably learned in a garden. Speaking of eggs, I think of hens. Living on a farm, of course there have al-

ways been hens and chickens. These creatures were provided with houses and yards and fences, and given every inducement to remain where they belonged; yet with diabolical ingenuity they would escape from their quarters, dig under the fence, fly over it, or some one would leave a door or a gate open, and then, with one accord, all the flock would make for the gardens and scratch and roll in the borders. This sort of thing happened repeatedly, until I felt there must be a league between the farmer's wife and the But the limit of endurance was reached when, one afternoon, coming out to look at a bed of several dozen Chrysanthemums set out in the morning, I found the poor plants all scratched out of the ground, broken and wilted. Then in wrath the fiat went forth, "No more hens on this farm, those on hand to be eaten at once." days a patient family had hen soup, hen croquettes, hen salad and hen fricassee, until the last culprit came to her end.

SUN-DIAL—PERGOLA

SUN-DIAL

There is no more charming and interesting addition to a garden than a sun-dial. For hundreds of years sun-dials have been used as timekeepers, and though some of the very old ones were occasionally set into the façade of a building, they are generally found in the plaisaunce or garden, mounted upon quaint pedestals. Sun-dials are supposed, by their owners, to keep accurate time, but it must be remembered that there is always a difference between clock-time and sun-time. While, to-day, our lives are frequently portioned into minutes, and it would seem as if one might loiter and be lazy in a garden, if anywhere, still even among the flowers we find a "tempus fugit." For a time after my sun-dial was set, it was amusing to notice how often, about half after eleven o'clock, and again at five, this late addition to the garden would claim the attention of the workmen.

My sun-dial stands in the center of a formal garden where four paths meet, forming a circle twenty feet across. The pedestal is a simple column of marble, four and onehalf feet high, slightly tapering toward the top, with beveled corners. This is placed on a stone foundation three and one-half feet deep, laid in cement. The pedestal I found at the yard of a second-hand building-material man, on Avenue B, in New York city. After it had been set in place, I wanted it rubbed up and a chipped place smoothed. The only available man for this work, was the gravestone-cutter from the nearest town. When he was recognized at work in the garden by passing countrymen, they supposed, of course, that some one was buried there, and many have been the inquiries as to "whose be that mouny-ment."

Crimson Rambler Roses twine about the pedestal: At the corners of the four paths are standard Box trees, which stand like sentinels, and between them there are Bay

SUN-DIAL—PERGOLA

trees in terra-cotta vases of simple shape—copies of antique ones.

The dial made for the latitude bears this inscription, "Utere praesenti, memor ultimae" (Use the present hour, mindful of the last), which I found in an old book on sundials in the Avery Library, at Columbia University.

PERGOLA

Across the end of this garden is a rustic pergola seventy feet long, made of cedar posts cut from the woods on the farm, ten posts on a side, each post being set four feet deep. A string-piece of heavy chestnut rests on the tops of each row of posts. Cedar poles ten inches apart extend across the top and project two feet over each side. The pergola is eight feet wide and ten feet high, is easy to build and very effective. Care must be taken to set the posts at least four feet. At each post are planted a two-year-old root of Wistaria and one of Virginia Creeper, and I live in the hope of some

day seeing the vines cover the pergola. The ground slopes gently where this is built, and the first autumn after it was made, it looked, from a little distance, so much like a section of an elevated railroad as to be very depressing. But one must possess imagination to be a gardener, and have the ability to see the garden as it will look "next year." So I refused to see the pergola except as clothed with vines, and in May, with the beautiful racemes of Purple Wistaria hanging from every rafter.

Patience and perseverance are traits necessary to the gardener. One must not be discouraged, but determined to succeed. If a set of plants die, or do not flourish this year, try them again next season, under different conditions, until the difficulties are overcome. I have known people who began gardening as a mere pastime when over forty years old, and who have told me what an absorbing interest it had become and how greatly it changed the whole aspect

SUN-DIAL—PERGOLA

of life for them in the country. What a delightful tie, fondness for gardening makes between people! I know several men with beautiful places and lovely gardens in which they take the warmest personal interest. Whenever I meet one of them at dinner, if by chance I am not seated next to him, I am unhappy and cannot listen sympathetically, either to the enthusiasm of the man on one side whose heart is, perhaps, bound up in golf, or to the laments of my neighbor on the other, who may be suffering from rheumatism or gout, and unable to eat or drink what he wants.







CHAPTER XV

INSECTICIDES—TOOL-ROOM

THE enemies of growing things have certainly increased alarmingly of late years. I cannot recall that formerly any insect was to be found in either vegetable or flower garden, other than the potato bug, currant-worm, cabbage-worm, and the green worm and small black beetle on the Rose; but now there are so many horrid creatures lying in wait until a plant is in perfection, to cut the stalk, or eat the root, or eat the pith from the stalk so that it falls, or to devour the leaves and eat the blossoms, that insecticides and a spraying machine are as necessary to a garden as a spade. a small garden a spraying machine holding from a couple of quarts to a gallon, can be bought for a trifling sum, that will answer

the purpose very well. For a larger garden, a good air-pump, costing from five dollars upwards, will be found an excellent investment.

One of the best insecticides is Bordeaux mixture, which can either be bought or made. I have twenty-five gallons made at a time and keep it always on hand. The following is the receipe:

Three pounds of blue vitriol in coarse crystals; three pounds of unslaked lime. Slake the lime in two and one-half gallons of water; pour two and one-half gallons of water over the blue vitriol in another receptacle, and let both stand over night. In the morning stir the blue vitriol until all is dissolved; then let two persons pour simultaneously the lime water and the blue vitriol into the same receptacle, and add twenty gallons of water; stir well before filling the spraying machine.

Bordeaux mixture is to be used for rust, mildew, and all kinds of blight, whenever the leaves of plants have a tendency to turn black. Hollyhocks seem to be universally attacked by rust. Spraying the plants at the end of April, and again in the middle of May, should entirely prevent this.

AUTUMN WORK IN THE FLOWER GARDEN



I have found that Bordeaux mixture prevents the leaves of Monkshood from turning black and falling off, if the plants are well sprayed with it about the middle of June and the first of July.

Phloxes grown in rather shady places will, in damp weather, fall victims to mildew on the leaves. Spraying with Bordeaux mixture the end of June and middle of July should prevent this. Roses also have a tendency in warm, damp weather to mildew, which can be prevented by spraying the plants with Bordeaux mixture.

Kerosene emulsion may also be prepared, and is excellent for killing, both the small green aphids that often cover the leaves of Roses, and other hard, scaly insects. Following is the receipe:

Put one cake of laundry soap shaved fine into one gallon of water. When dissolved, add two gallons of kerosene oil. This makes the emulsion.

For spraying, use one quart of the emulsion in fourteen quarts of water. Be sure

that this is very thoroughly mixed before filling the sprayer.

Powdered hellebore, if dissolved in the proportion of one pound of powder to one gallon of water, will destroy both the green worm on the Rose leaf and the small dark beetle that eats the Roses. It will also dispose of green worms on other plants.

Slug-shot dissolved, one-half pound of powder to one gallon of water, will, if used the latter part of April and several times in May, keep the Roses comparatively free from insects. Slug-shot and hellebore may also be used dry and blown on to the plants with a bellows.

I have used Hellebore in my garden for many years without harm to anything except the worms and beetles. But recently I heard of a lady who was severely poisoned in using dry Hellebore. The wind blew it into her face; perhaps some was inhaled, and serious illness resulted. I mention the fact here, to caution all who use it not to

let either the spray or the powder come in contact with the skin. Some persons may be susceptible to the poison while others are not,—presenting a case of what the doctors call an "idiosyncrasy."

Paris green, mixed in the proportion of two tablespoonfuls to three quarts of water and used as a spray, will destroy a beetle that sometimes appears upon the Gourd vines.

Tobacco water will kill the black aphids which appear on the stems and leaves of hardy Chrysanthemums. It will also kill green aphids. This spray is made by filling an ordinary pail lightly, not pressed down, with tobacco stems. Pour as much cold water into the pail as it will hold; let it stand for three hours, when it is ready to use in the spraying machine. This mixture will be good for only twenty-four hours.

Tobacco spray will also destroy the large red aphid (I call it this for want of, per-

haps, the proper name) that has recently appeared in some localities upon the stems of the Rudbeckia (Golden Glow) and of the single hardy Sunflower, just below the blossom.

The enemy of the Box is the white spider. The insect spins its web on the Box and works from the inside. If the branches are pulled aside, the inside of the plant will be found full of dead leaves in the vicinity of the web. Recently I read in a wellknown gardening monthly, that this spider could be destroyed by spraying with kerosene emulsion. I have some fine Box trees. and there were several white spider-webs on each. Watering with a very strong force of water had been tried without effect. Upon reading the article in the monthly and finding that the spider was certainly causing disaster which might be fatal, I proceeded to have the trees sprayed with kerosene emulsion, using it of the same strength as for Roses. In fact, the sprayer was not

re-filled, as there was enough left in it since last using it on the Roses. About three days after the Box had been sprayed, large, unsightly brown patches appeared on the trees, showing that the emulsion had killed the leaves wherever it touched them. The spider was not harmed.

I mention this experience as an example of the danger of taking all the directions found in horticultural publications as gospel truth. Nor should an amateur gardener ever be tempted to trifle with plant medicines. I have a certain friend whose affection for her Roses is more profound than her knowledge of how to treat their natural diseases. Observing last summer that one of her most cherished Crimson Ramblers was covered with aphids, she concluded to spray it with "something." A bottle of carbolic acid being most available, she tested its merits at once. The efficacy of carbolic acid as a poison was proved beyond a doubt, for the insects became singularly dead in a day or two, and

so did the leaves; they fell off together. There was nothing left but the forlorn stems and branches, looking like some freak of the vegetable kingdom.

TOOL-ROOM

It is of the greatest importance to have a tool-room or closet according to the size of the place, and to require all implements to be kept there when not in actual use. There should be shelves across one end or side, where shears, trowels, garden cord, clippers, watering-cans, mallet, various mixtures for spraying, oil-cans, keys for turning on the water, twine and all the smaller things one uses, may be found at a moment's notice. Garden sticks painted green, in three sizes, three and a half and four feet long, and five-eighths of an inch in diameter, and thicker ones an inch in diameter for Dahlias, should be kept on hand in barrels. They can be bought of lumber-dealers in New York, where they are known as

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Tritoma (Red-Hot Poker Plant) September twenty-eighth

"dowels." They come in bundles of one hundred, costing from sixty cents to a dollar and twenty-five cents a bundle, according to size, unpainted, and the men can paint them on rainy days. The lawn mowers and the roller (which should be a heavy one) can also be kept in the tool-room. Rakes, both iron and wooden, hoes, spades and shovels, the latter both long-handled and short-handled, are best kept hung up along one side of the closet, where the men can see at a glance what they want.

There should also be a pickaxe and a crowbar for taking out refractory stones, and, most necessary of all things in a garden, the wheelbarrow should be kept here, too. A sickle and a scythe must not be forgotten.

If the garden is large, a two-wheel tipcart will prove a great saver of labor in carting manure and soil and in the removal of debris.

On a particular shelf in my tool-room I

keep my private trowel and flower scissors, to which are attached long red ribbons as a warning of "Hands off!" to others. There is also a clipper which I often use in walking about to trim a bit here and there from a shrub or a climbing Rose.

If a scrap-book be kept, in which everything of interest pertaining to the garden can be pasted or written, it will be found a great help. In this way items about fertilizers, insecticides, special treatment of plants, with copies of lists ordered, can be preserved, and also, most interesting of all, notes of when the different plants bloom each year. I find the following under date of October 18, 1901:

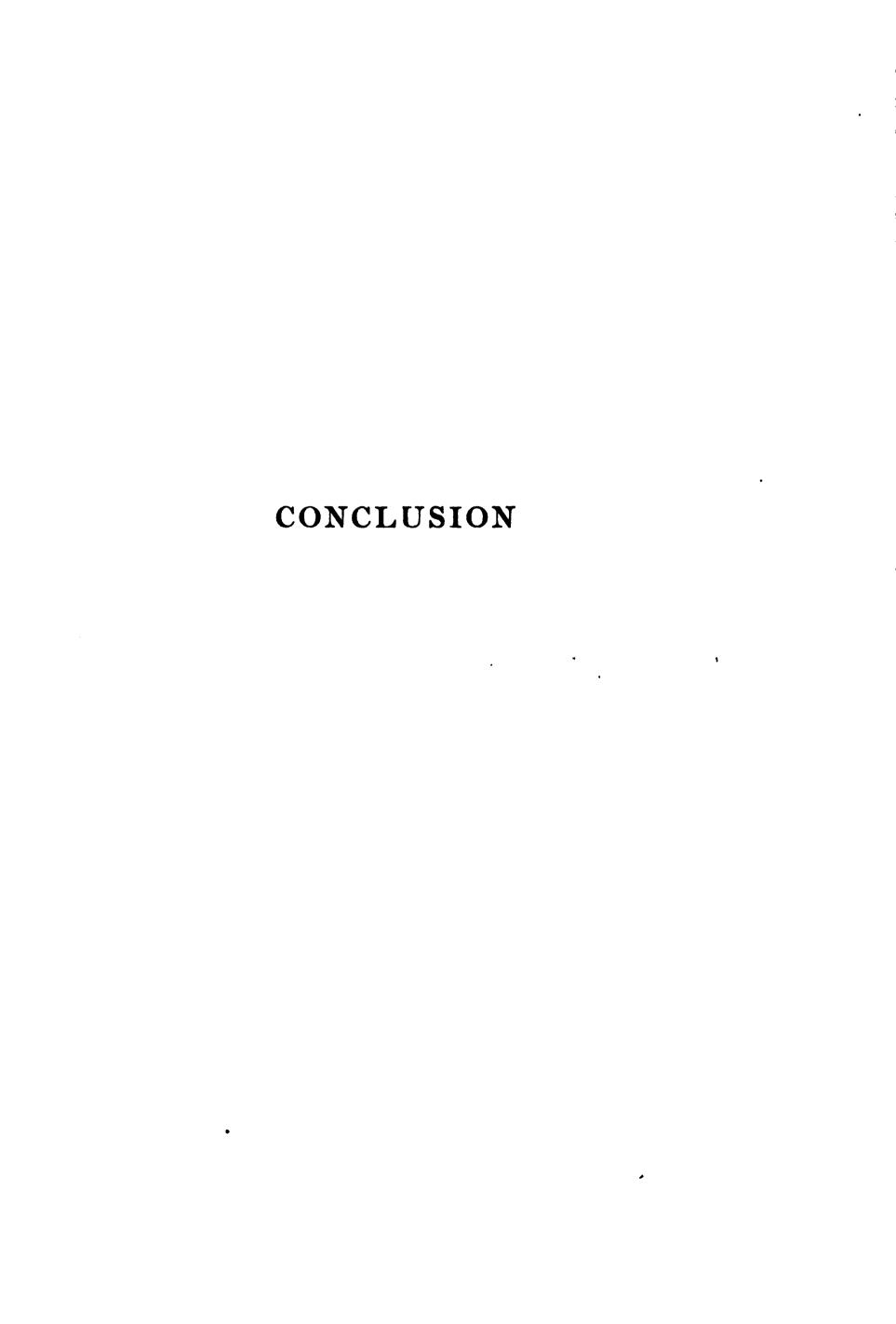
"To-day, though ice has formed three times, I have filled nineteen vases with flowers. They are Phlox, Larkspur, Monkshood, Salvia, Nasturtium, Roses, Mignonette and Chrysanthemums."

After trying many kinds of gloves for gardening, including the rubber ones, I now

use only old Suede gloves; they give sufficient covering and permit more freedom of movement to the hands and fingers than those of heavier material. It would be quite impossible to transplant tiny seedlings while wearing gloves with clumsy finger-tips.

Unless a woman possesses a skin impervious to wind and sun, she is apt to come through the summer looking as red and brown as an Indian; and if one is often out in the glare, about the only headgear that can be worn to prevent this, is the oldfashioned sunbonnet. With its poke before and cape behind, protecting the neck, one really cannot become sunburned, and pink ones are not so bad. Retired behind its friendly shelter, you are somewhat deaf to the world; and at the distant house, people may shout to you and bells be rung at you, and, if your occupation be engrossing, the excuse "no one can hear through a sun-bonnet," must be accepted.

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CHAPTER XVI

CONCLUSION

THE character of professional gardeners seems to be changing. They have become more perfunctory, more stubborn, more opinionated, until now it is a really serious question with them of "the danger of a little knowledge." To find a man who combines sobriety and a good disposition with a fair knowledge of his business and a real liking for it, is a difficult matter. Where but one man is kept to care for vegetables, flowers and lawn, he is more than likely to have little interest beyond potatoes or corn, or to be good at raising small fruits, and to consider everything else he has to do as so much waste of time. When first married, one of our gardeners was a German who took no interest in flowers, and planted half

the vegetable garden with "kohlrabi" and "korn salad." We had never heard of these delicacies before, and did not care for them. I remember also his telling me that one kind of flower was enough to raise anyway.

If a young man with an elementary knowledge of gardening can be found, who wants to learn, is strong, willing and intelligent, it is better to supply most of the brains yourself. You will find your own wishes more apt to be carried out than by the gardener who "knows it all," and seems to resent what he calls "interference" on the part of his employer.

I remember, when a child, seeing my father's gardener walking about in the early evening after his supper, smoking a meditative pipe, tying up Roses or spraying plants, and often setting out seedlings after sundown. He was never idle; he loved his work and attended to it. But now it is rare indeed to see a gardener, after hours, going about his work; autre temps autres mœurs.

September sixth

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CONCLUSION

Remember always that it is the overcoming of the difficulties in the gardener's way, the determination to succeed, that gives zest to the occupation. Did everything planted grow and flourish, gardening would be too tame. Rust and blight, cutworms, rosebeetles and weeds, afford the element of sport so attractive to us all. A lesson must be learned from every failure; with renewed patience persevere until success is reached.

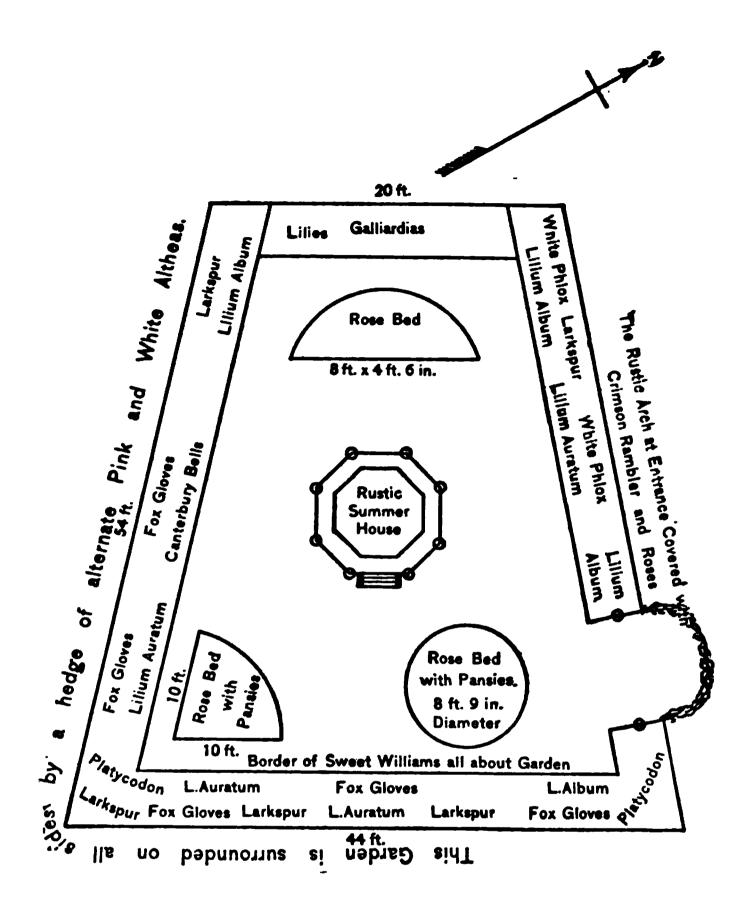
I would make the strongest plea in favor of a garden to all those who are so fortunate as to possess any land at all. The relaxation from care and toil and the benefit to health are great, beyond belief, to those who may have to work with head or hands. If you can snatch a few minutes in early morning or late afternoon, to spend among the plants, life takes on a new aspect, health is improved, care is dissipated, and you get nearer to Nature, as God intended.

If the rich and fashionable women of this country took more interest and spent more

time in their gardens, and less in frivolity, fewer would suffer from nervous prostration, and the necessity for the multitude of sanitariums would be avoided.

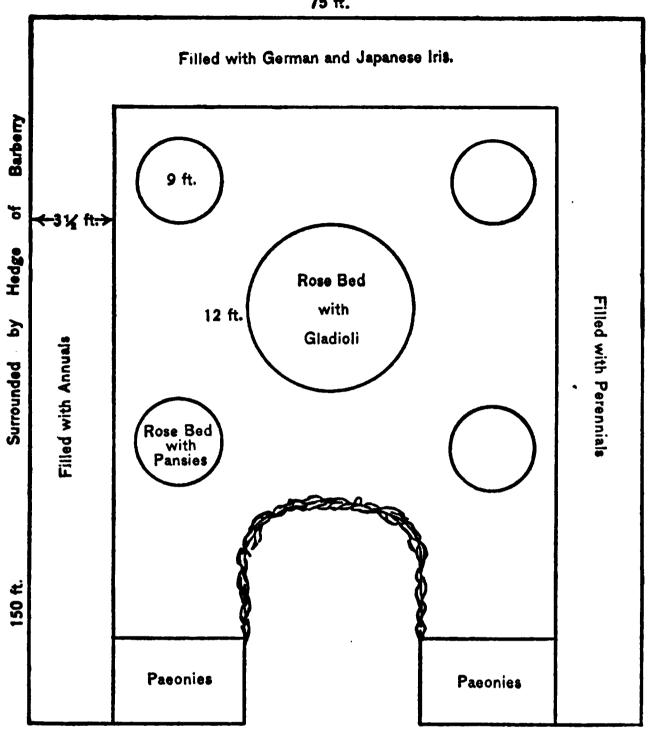
Flower gardening is preëminently a woman's occupation and diversion. Nearly every great lady in England takes a personal interest in her gardens and conservatories, and knows all about the plants and flowers. Here, the majority of women having large places leave the direction of the flowers, as well as the vegetables and fruit, to the taste and discretion of the gardener, and thus miss a great and healthful pleasure.

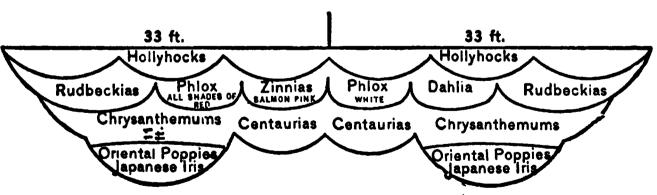
As a rule, young people do not care for gardening. They lack the necessary patience and perseverance. But in the years of middle life, when one's sun is slowly setting and interest in the world and society relaxes, the garden, with its changing bloom, grows ever dearer.



135 ft Old Stone Wall Covered with Grape Vine Hollyhocks Ilium Candidur Hardy Sunflowe Lilies Monkshood Phlox Rudbeckles Rudbeck! トモ German Iris Phlox Phlox Japanese Iris Larkspur Fox Gloves Bed edged all the way with Sweet Williams

PLAN FOR BORDER





FOR BORDER **PLAN**

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		,

Aconitum Napellus, 110. Altheas, 160. Ampelopsis Veitchii, 25. Anemone Japonica alba, difficulty with, 61. Annuals— List, with height, colour and period of blooming, 88. Sowing, 78, 80. Transplanting, 86. [See also names of flowers.] Antirrhinum, sowing, 80. Aquilegias, see Columbines. Asters— Destruction by beetle, 14, 81. Sowing, 80. Auratum lily, 139. Disappearance of bulb, 139. Price, 42. Autumn work in garden, 70-72. Azalea mollis, perishability of, 13. Barberry as hedge, 51, 160. Bedding-out plants, 120. [See also names of plants.]

Beds, rule for making, 16.

Beetle destroying asters, 14, 81.

Biennials, 117. [See also names of flowers.] Bone-meal, 73, 74. Bordeaux mixture, 190. Borders— Around house, 29. Blooming from May to September, contents of border, 69. Planting, 29, 40–44, 67. Short path and narrow borders, 68. Small plot borders— Boundary lines of property, **48–50.** Cost, 44. Planting, 40-44. Boston ivy, 25. Box, white spider pest, 194. Box-edging, 177-178. Bulbs, purchasing and planting, 40-44, 149-156. Calendula, 81.

Calendula, 81.

Calycanthus floridus, 160.

Campanula medium, 117.

Candytuft, planting, 46.

Cannas, 48, 120, 122.

Canterbury bells, 117, 120.

Expense—

Cardinal Flower, transplanting, etc., 32. Centaurea, see Cornflower. Chrysanthemums, 43, 99. Clayey soil, lightening, 16. Clematis paniculata, 21. Climbing roses, 27, 131. - Columbines, 41. Planting, 41. Sowing, 93. Corcopsis, 98. Cornflowers— Blooming, etc., 81. Planting, 46. Cosmos, sowing, 81. Cost, see Expense. Creepers, see Vines. Crocuses, 150.

Daffodils, 41, 152-154.

Dahlias, 120, 121.

Cost, 47.

Planting, 45.

Storage, 47, 48.

Delphiniums, 96.

Digitalis, 117.

Double yellow daffodils, 152
154.

"Dowels," 197.

England—
Gardening seasons, etc., 19.
Gardens, small plots, 37.
English ivy, 25.
Everblooming roses, 127, 134.
Evergreen shrubs, 167.
Exchange of plants, 98, 99.

Border planting, 40-44. Front beds, 47. Fall work in the garden, 70-72. Ferns— Border of, 29. Maidenhair haunts, 31. Planting, 32. Transplanting, 32. Watering, 173, 174. Flowers— Annuals, see that title. Gathering, extract from English book, 77. Perennials, see that title. [See also names of flowers.] Flower garden — Small plots of ground, 23, 37. Foxgloves, 117–120. France, small plots, 37. Front of the house, planting bed, 45. Funkia oærulea, 142. Funkia subcordata, 142.

Gaillardias, 104.
German iris, 104.
Gladioli, 120, 122, 126.
Purchasing, 43.
Storing, 47.
Gloves for gardening, 198.
Golden Glow, 46, 47, 111.
Grandiflora, 98.
Grass walks, 175–177.
Graveled walks, 174–175.
Ground, see Soil.

Hansoni, 142. Hardy roses, 127, 130. List of roses blooming in June and September, 133. Hedges — Beauty of, as fences, 50. Preparing ground for, 50. Quick screens, 67. Varieties, 50-51. [See also names, Privet, etc.] Hellebore, 192. Hemlock spruce, 50. Henryi, 27. Hibiscus, 98. Hollyhocks, 94. Planting, 28, 68. Seeding, 58. House— Painting, 25-27. Plan of garden to suit style of house, 21. Vines, see that title. Hyacinths, 40, 154. Hybrid perpetual roses, 127. List of roses blooming in June and September, 133. Hydrangea paniculata, 160.

Insects and insecticides, 189.
Asters destroyed by beetle,
14, 81.
Bordeaux mixture, 190.
Hellebore, 192.
Kerosene emulsion, 191.
Paris green, 192.
Slug-shot, 192.

Insects and insecticides—
Tobacco water, 193.
White spider on box, 194.
Iris, 104, 173, 174.
Ivy—
Boston ivy, 25.
English ivy, 25.

Jackmani clematis, 27.

Japanese barberry, 51, 160.

Japanese iris, 104, 173, 174.

Japanese lily, 142.

Japanese tree peonies, 106.

Japanese vines, planting, 28.

Kerosene emulsion, 191.

Laying out a garden—

Beds in front of vines, 28. Borders, see that title. North side of house, 29. Plan of garden, suiting to style of house, 21. Soil, see that title. Vines, see that title. [See also names of flowers, etc. Lilac, 164. Lilies, 139–146. Auratum lily, see that title. Border planting, 42. Planting, etc., 144-146. Watering, 173. [See also names, Lilium, etc.] Lilium auratum, see Auratum lily. Lilium Canadense, 142.

Lilium candidum, 140.

Lilium longiflorum, 141.

Lilium speciosum album, 141.

Lilium speciosum rubrum, 141.

Lily-of-the-valley, 143.

London Pride, 110.

Lychnis, 110.

Maidenhair fern, haunts of, 31.

Mai Glöcken, 143.

Marigolds, 82.

Meadow lily, 142.

Monkshood, 110.

Moonflower, Japanese, 28.

Morning-glory, Japanese, 28.

Narcissus, 40, 152. Nasturtiums, planting, 79.

Ordering plants, 65. Oriental poppies, 102.

Painting of house and care of vines, 25-27.

Pansies, carpeting rose-beds with, 84, 126.

Paris green, 192.

Peonies, 41, 105.

Perennial vines and creepers, 167.

Perennials—

Development, 52.

List, with height, colour and time of blooming, 112.

Planting, 49.

Raising in seed-bed, 48, 57.

Perennials—

Seed-bed, see that title.

Sowing seeds, 59, 93.

Transplanting, 102.

[See also names of perennials.]

Pergola, 183-184.

Pests, see Insects.

Philadelphus syringa, 165.

Phlox, 82, 106, 111.

Pinks, 102.

Plan of garden, suiting to style of house, 21.

Planting, 66-74.

Borders, 29, 40-44, 67.

Candytuft, 46.

Cornflowers, 46.

Dahlias, 45.

Fall work, 70-72.

Ferns, 32.

Hollyhocks, 28, 68.

Lilies, 144-146.

Perennials, 49.

Roses, 126, 127.

Rows, 68, 69.

Small plot, 37-54.

Starting a garden, 21.

Transplanting, see that title.

Plants—

Exchange, 98, 99.

Ordering, 65.

Unpacking, 65.

Platycodon Mariesi, 96.

Poeticus narcissus, 40, 152.

Poppies, 102.

Sowing, 78–79.

Privet, purchase, etc., 51.

Professional gardeners, 13, 203.

satisfactory

Red-hot poker plant, 104. Seeds, sowing, 58. Setting of plants, 13. Rhododendrons — Planting and care of, 29-31. Shirley poppies, 78, 79. Shrubs, 159–168. Watering, 173, 174. Rockets, 98. Evergreen shrubs, 167. Roots, purchasing, 40-44. Growth from cuttings, 161, Rose of Sharon, 160. 162. List of most Roses, 125–135. Best roses, list of, 131. shrubs, 162. Budded stock, 126. Planting, 50. rose - bed with See also names of shrubs. Carpeting Slug-shot, 192. pansies and gladioli, 84, Small plot, planting, 37-54. 126. Borders, see that title. Climbing, 27, 131. Everblooming, 127, 134. Front of the house, 45–48. Snowball, blight, 159. Exclusiveness, 125. Hardy, see that title. Snowdrops, 149. Hybrid Perpetual, see that Soil — Beds, rules for making, 16. title. List of hybrid perpetual and Clayey, lightening, 16. hardy roses blooming in Manure, use of, 71–74. June and September, 133. Preparation of, 13, 16, 20. Planting, 126, 127. Sowing— Annuals sown in seed-bed in Replanting and cutting, 127, 130. spring, list of, 80. Seeds, 58. Rudbeckias, 28, 46, 47, 111. Spider on box, 194. Salvia, 121. Spring-flowering bulbs, 40-44, Scabiosa Caucasica, 109. **149–156.** Scarlet salvia, 121. Starting a garden, 21. Sticks, "dowels," 196. Scrap-book, 198. Suburban gardens, 39. Screens, quick, 67. Sunbonnet, 199. Seed-bed— Sun-dial, 181–183. Empty, 62.

Importance and satisfaction,

48, 57.

Preparing, 57.

Sweet Peas—

Sowing, 83.

Trellis, 84.

Sweet Williams, 95.

Tigrinum, 142.
Tobacco water, 193.
Tools and tool-room, 196-199.
Transplanting—
Annuals, 86.
Cardinal flower, 32.
Fall work, 70-72.
Ferns, 32.
Perennials, 102.
Tritomas, 104.
Trumpet creeper, 25.
Tulips, 41, 150.

Unpacking plants, 65.

Valerian, 99.

Veronica longifolia, 104.

Vines and Creepers—

Ampelopsis Veitchii, 25.

Best annual vines, 168.

Care of, 25.

Vines and Creepers—
Clematis panioulata, 27.
English ivy, 25.
Henryi, 27.
Jackmani clematis, 27.
Japanese vines, 28.
North side of house, 29.
Painting of house, 25–27.
Perennials, 167.
Planting, 23.
Roses, climbing, 27, 131.
Trumpet creeper, 25.
Virginia creeper, 25.

Walks, grass and graveled,
174-177.

Water supply and watering,
171-174.

Weeding, 87.

White spider on box, 194.

Yucca filamentosa, 102.

Zinnias, varieties of, 82.

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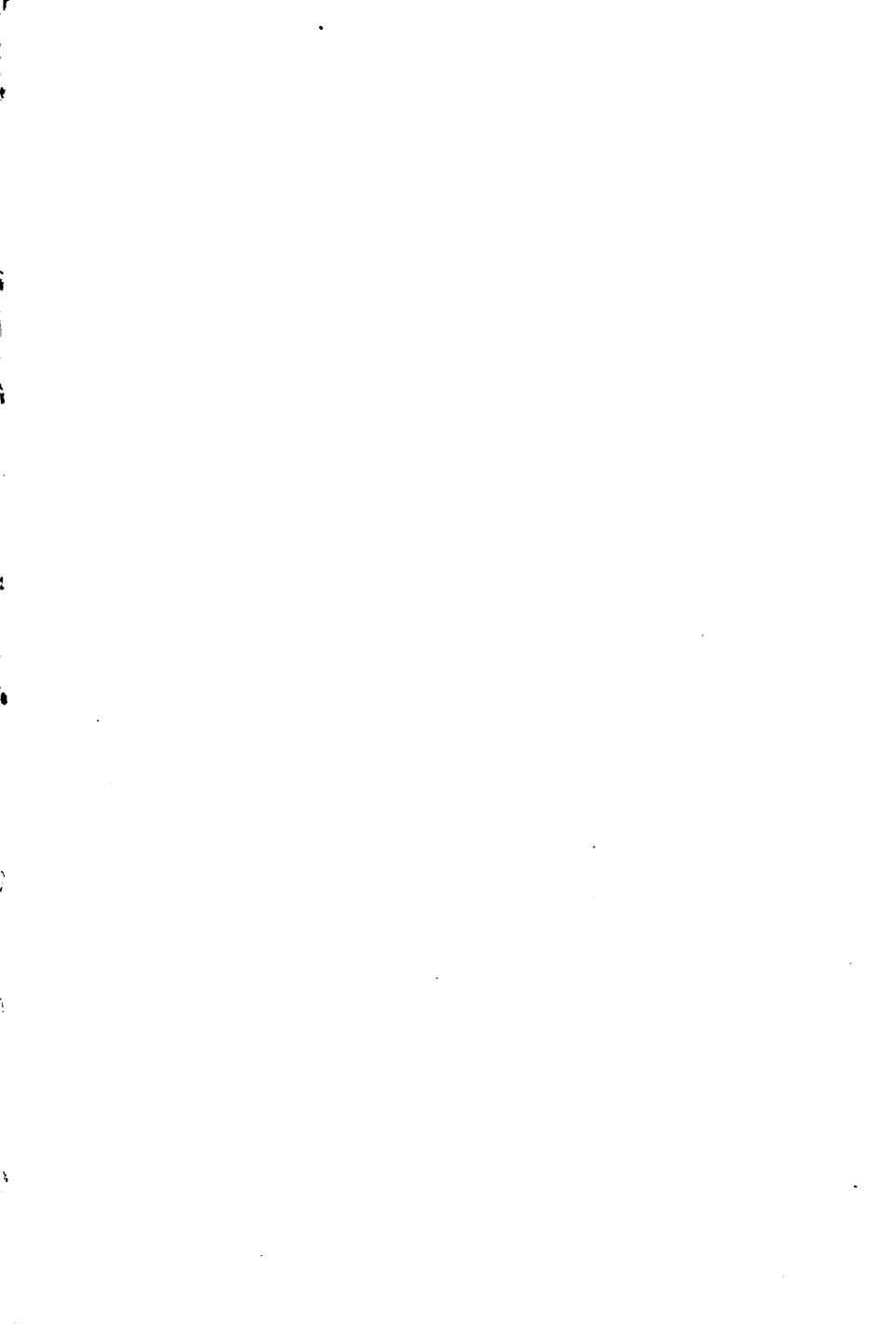
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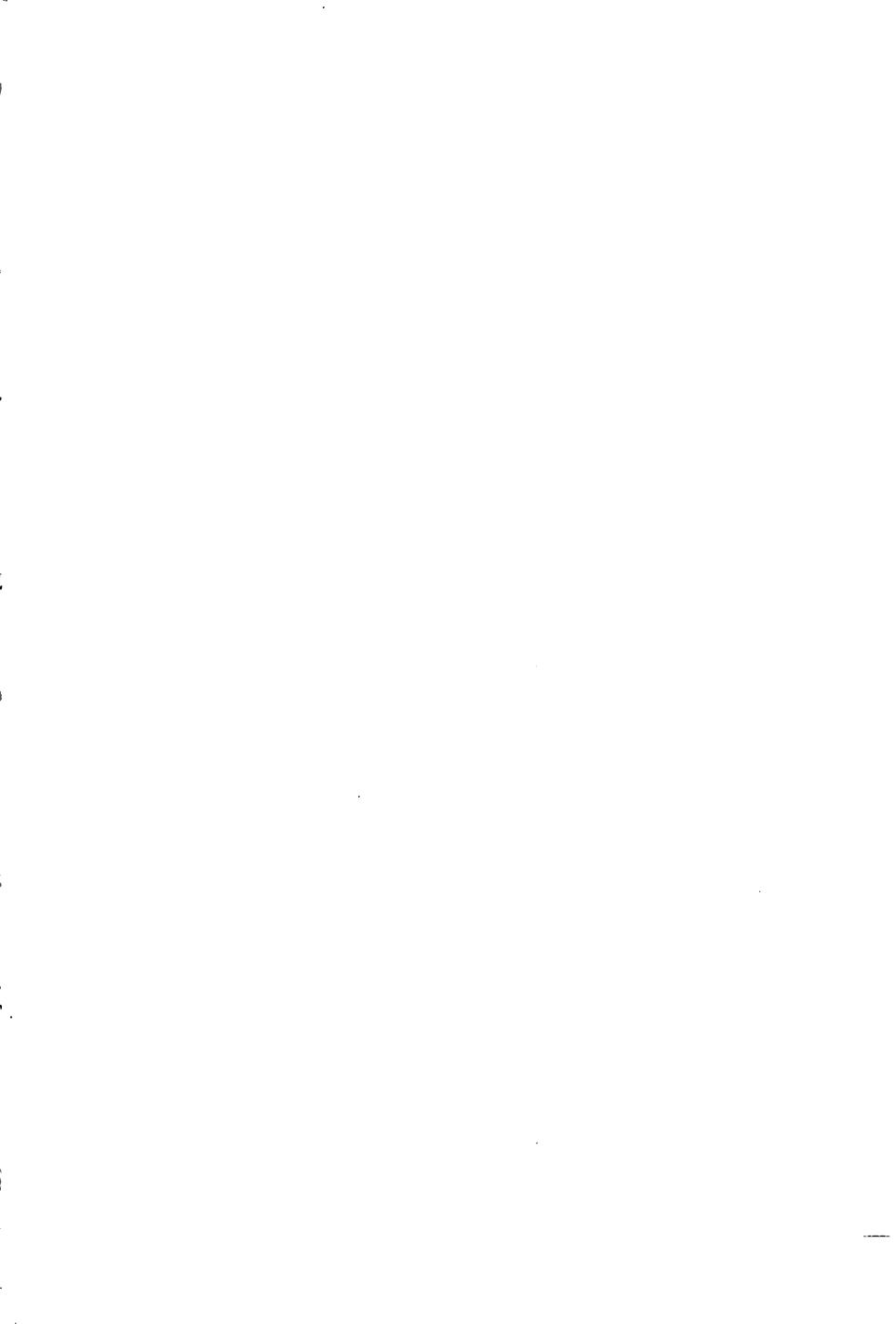
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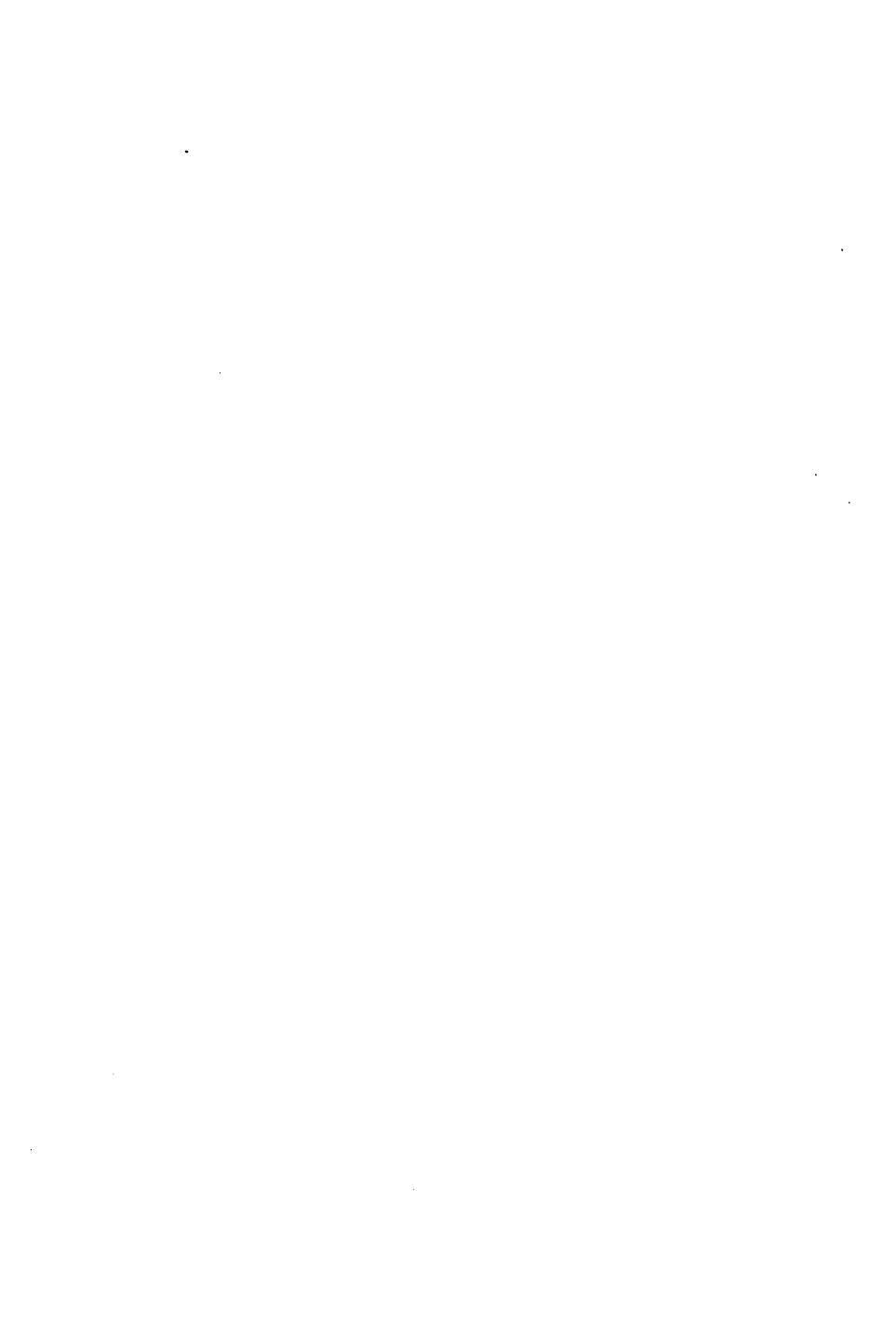
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SPRING

Where the climate is like that of New York, perennials can be planted safely about the 15th of April, and the earlier it is done, the less chance there is that they will receive a setback. Success in planting depends much upon attention to details. Care must always be taken, to properly prepare the ground, to give the roots plenty of room, to water well at first and not to allow the poor things to suffer for want of food and moisture.

Along in May if a mulch of grass-clippings, leaves from the Autumn before, or old stable manure, be spread over the Rosebeds, tuberous looted Begonias and Lilies, it will help them greatly through the summer.

Of the great number of hardy perennials the following are a few of those easiest grown and most satisfactory: Aconitum napellus (Monkshood), Agrostemma, Anemone Japonica, Aquilegia (Columbine), Bocconia, Boltonia, Coreopsis grandiflora, Delphiniums, Dianthus, Dicentra spectabilis (Bleeding-

ANOTHER HARDY GARDEN BOOK

Heart), Dictamnus, Funkias, Helianthus multiflorus plenus (double hardy Sunflower), Hemerocallis (Day Lily), Hibiscus, Hollyhocks, Iris, Lobelia (Cardinal flower), Oriental Poppy, Penstemon, Phlox, Platycodon Mariesi, Scabiosi Caucasia, Spireas, Tritomas, Veronica, Yuccas. The seed bed must be prepared as soon as the ground can be worked, and the seeds of perennials sown about April 10th. The earth for this bed should be made very light and fine, and from the time the seeds are sown until they are transplanted to their final home the little seedlings must never be allowed to dry out.

Of the foregoing, the following will be found easy to raise from seed: Columbines, Hollyhocks, Sweet William, Platycodon Mariesi, Delphiniums, Coreopsis, Hibiscus, Rockets, and Oriental Poppies. Also of the biennials, Foxglove and Campanula (Canterbury Bells). But it is better at first for the amateur to buy the plants of the other varieties.

SPRING

Annuals may be sown from April 20th to May 10th, according to the season. Asters for late blooming may be sown up to the end of May.

In planting, tall-growing things should be set at the back of the bed or border, with the low-growing ones in front. Catalogues usually give the height, period of blooming and color of flowers, so that, with a little study, even the beginner in gardening cannot go astray. The flower gardener must remember that fine effects can only be produced by masses of color, and that a number of each variety of plants should always be set together. Never put one or two lone plants by themselves, with the rest of their family scattered about singly or in couples. Speaking of large clumps reminds me of a plot eighteen feet by forty, entirely filled with tall-growing perennial Larkspur, which is a beautiful sight when blossoming, and with fifty Japanese Anemone Whirlwind, grown in a mass, which surpasses in

'ANOTHER HARDY GARDEN BOOK

beauty all other sights in the garden when they are blooming.

The making of an entirely new garden is a most delightful experience, but, like the marriage estate, is something not to be undertaken "lightly or unadvisedly." The amateur, who is a beginner in flower gardening, would scarcely be successful in planning, making, and planting a new garden, particularly a formal garden, without experienced advice. After selecting the location and determining the general conditions and character of the new garden, the place should first be carefully measured, and plotted accurately, almost to the inch. Then make a plan for the whole in detail, with the shape of every bed. After this has been done, and the gardener is convinced that as far as can be foreseen it is the most satisfactory arrangement for the ground, and will give her the garden of her dreams, let the actual work begin and let it not be delayed after the frost has left the ground.

SPRING

Rocks (if they are in the wrong place) should be blasted out and stones and stumps removed. The sod should be turned up with a plow, and then carted off and piled in some out-of-the-way place to decompose. It will then be ready to be returned to the garden and made useful as a valuable fertilizer, or in planting trees, shrubs and Rhododendrons, for which it is especially valuable if chopped up and put in the bottom of the hole made to receive the roots. The ground should then be carefully levelled, thickly covered with manure, plowed deeply and harrowed thoroughly three or four times; if the garden is not too large, it should be spaded over as well. It is then in condition for laying out the beds and walks. For this work there should be a large quantity of garden cord, a long measuring tape, many pointed stakes, and a wooden mallet. The center of the plot is first marked with a stake, and from this point the other measurements are taken off

ANOTHER HARDY GARDEN BOOK

according to the plan, the outlines of each bed being marked by stakes driven in about every three feet, with cord stretched along between them. Cord must also be stretched to mark the paths; stakes should then be driven to mark the places for trees, which should be the first thing planted. If it is to be a formal garden, pyramidal-shaped evergreens are the best for the purpose.

In preparing the beds, better flowers will be produced for a longer time if, for a bed ten feet long by four feet wide, some bonemeal, leaf-mould (if any can be found) and wood-ashes—a pailful of each—be added to a wheelbarrow of manure, with a sprinkling of lime, and then thoroughly spaded in. If the soil be heavy, add also enough sand to lighten it. This seems a prescription of many ingredients, but it is worth the trouble.

If the garden is in a locality where Box will grow, although the expense is considerable, it will be a great addition to edge the bed and paths with Box. But great care

SPRING

must be taken to set the little Box plants perfectly straight. The beds may then be planted with perennials, annuals, and Lilies, according to your taste; but remember always to preserve harmony of color and to secure effect by planting a number of each variety together.

If the paths are to be of grass, the grounds, after being levelled, need only be raked smoothly, the grass seed sown and carefully raked in with an iron rake and the paths rolled.

Grass paths have but two disadvantages. They are impracticable near the house or where they are put to severe usage, as turf is unable to resist the wear of constant walking. They are, also, often damp with dew in the early morning and always wet for a time after a rain, but they will dry quickly if the grass be kept closely cut, and the owner can supply herself with overshoes when she would sally forth upon the wet turf. How many of us must plead guilty

ANOTHER HARDY GARDEN BOOK

to walking upon the grass borders of graveled paths because the gravel was tiresome or reflected the heat! For those, however, who spend the four Winter months in the country, gravelled walks are a necessity if they are to be used at all.

If they are to be gravelled, they must be dug out a foot or more in depth, filled in first with broken stone, then a layer of coarse gravel and finally the fine gravel, and all well rolled. All this having been done, the gardener has only to keep trespassers from the newly-sown grass, to water his garden in late afternoon and to possess his soul in peace until, when a month has slowly passed, he will find the beds covered with the sturdy green shoots of the new plants, the Box-edging putting forth tender leaves, the grass a velvet carpet, and he can then bid his friends come to see the new garden and picture to them its future beauties, which imagination has already painted upon his mind.

Abies polita, 190. Abies pyramidalis, 120, 125. Acacia, rose, 126. Aconitum napellus, see Monkshood. Ageratum, 144. Agrostema, 136, 145, 925. Ailanthus, 103. Alders, 97. Altheas, 125, 148, 203. American ash, 103, 124. American elm, 106. Anemone, Japanese, 149. Anemone Japonica, 225. Aphids, 66, 222. Apples, 62-65, 77, 80. Apple worm, 64. Aquilegia, see Columbine Arbor vitae, 120, 123, 125. Pyramidalis, 116. Arondo donax, 153. Arrow-head, 153 Artichokes, 23-24. Ash, 103, 110, 124. Asparagus, 22, 24-27, 53, 60. Asters, 149, 170, 183. Flowering time, 184. Planting time, 227. Seeds, 196.

Asters—
Use in borders, 144, 145,
146.
White, for beds, 152.
Auratum lilies, 175.
Blooming time, 148, 179,
181.
Planting of, 204.
Shortcomings of, 185.
Austrian pine, 122.
Azaleas, 97, 125, 217, 218.

Balsam, 145, 149, 196. Barberry, 126. Beans, 21, 22, 27-29. Beech tree, 103, 110. Beds— Preparation of, 172. Laying out, 229, 230. Making and renewing, 198-199. Planting, 231. Time for making, 198. Bee balm (red), 153. Bees, mixing of pollen by, 50. Beetles, 37, 50, 102. Beets, 21, 29-30. Begonias, 183, 184, 210, 225.

Berberis Thunbergii, see Barberry. Birch trees, 104, 110, 124. Birds in garden, 188. Bitter sweet, 97, 126. Blackberries, 80, 81. Black knot, 74-75. Black walnut tree, 104. Bleeding-heart, 224, 225. Blooming, time of, see names of plants. Boconia, Cordata, 145, 225. Adapted to wet places, 153. Flowering begins, 148. Height, 131. Suitable on edges of shrubbery, 142. Boltonia, 225. glastifolia (white), 142. Latisquama (pink), 142. Bone meal, 26, 38, 68, 73, 76. Borders— Arrangement of, 227. Color scheme for, 142-147. Time for making, 198. Borers, 69, 72, 76, 102. Box, 117, 118, 121, 123, 166, 170, 219, 230. Brussels sprouts, 30-31. Bulbs for spring flowering, 204, see also names of flowers. Bushes, 69.

Calendula, 148, 149, 196. Camelias, 149. Campanula, see Canterbury Bells. Cannas, 146. Blooming season, 148, 200. Bulbs of, 184. Care of roots, 209. Cantaloupe, 50. Canterbury bells, 132, 134-135. Blooming season, 147. Easily raised from seed, **226.** Planting of, 201-202. Use in borders, 144, 145. Cape Cod water lily, 153. Cardinal flowers, 146, 153, 226. Carnations, 137, 145. Carolina poplar, 110. Carrots, 22, 31. Catalpa, 76, 104-106, 110. Catalpa Bungii, 105, 106, 118. Caterpillars, 111. Cauliflower, 25, 31-32, 53. Cedars, 114, 120, 125. Celery, 22, 32-35, 53. Cellar for storage, 121. Centaureas, see Corn flowers. Cherries, 65-67, 77, 80, 104. Cherry trees, 104. Chestnut tree, 104. Chicory, 35. Chimney-bell flower, 134-135. Chinese iris, 174. Chives, 52-53. Chokeberry (black), 97.

Chrysanthemum, 57-58. Late-blooming flowers, 149. Protection from frost, 200. Spraying for aphids, 222. Transplanting, 216. Cives, 52-53. Clematis, 118. Paniculata, 126. Wild, 98. Cockscomb, 146, 149. Codlin moth, 64. Cold, effect of, on certain plants, 132, 148. Coleus, 129. Colonial gardens, 167. Color phases of the Garden, 147, 148. Colored borders, 142-147. Colorado blue spruce, 123, 125. Colorado fir, 123, 125. Columbines, 142, 144, 145, 201. Copper beech, 104, 124. Coreopsis, 148. Grandiflora, 225. Corn, 21, 35-37. Corn flowers, 144, 147, 149, 196. Corn salad, 35. Cosmos, 149, 196. Crap apples, 67. Crocuses, 205. Crown imperial, 224. Cucumbers, 37, 50. Curculio, 66, 71, 72, 74. Currants, 22, 78, 79, 223. Daffodils, 205, 214, 216.

Dahlias, 184, 900, 909. Day lily, 996. Yellow, 175, 178, 185. Deciduous trees, 94, 103, $oldsymbol{Delphiniums}$, 225. Doutzias, 118, 218. Gracilis, 195. Dianthus, 225. Dicentra spectabilis, see $oldsymbol{B}$ leeding-heart. Dictamnus, 226. Dictamnus fraxinella, 137. Dogwood, 104, 110. Dwarf fruit trees, 61. Early American gardens, 167. Egg-plants, 26, 37-38, 53. Elm (American), 106. English gardens, 167. English ivy, 187, 219. Enonymus Radicans (evergreen), 126. Eupatorium, 153. Evening primrose, 141. Evergreens, 111-116. List of, 125. Shearing time, 123. Suitable for lawn, 122-123. Hedge of, 18, 19. Ferns, 153. Fertilizer, when to use, 208. Fir trees, 123. Flower garden— Autumn work in, 195-210. In the Spring, 213-232. [See also Garden; names

of flowers.

Flower and vegetable garden combined, 19, 20. Flowers-Colors of, 136-148, 150, 151, 153, see also names of flowers. Production increased by cutting, 137. Foxgloves, 139. Early blooming flowers, 147. Easily raised from seed, 226. Seeds. 196. Transplanting, 201. Use in borders, 145. Frost, effect of on garden, *200, 205.* Funkias, 185, 226. Fruits, 57-89. Soil and location for, 61. Suitable for small gardens, **80**. Varieties best for planting, 61. [See also names of fruits; Fruit trees. Fruit garden, 61, 80. [See also names of fruits; Fruit trees; Garden.] Fruit trees— Beauty of, in blossom, 57-**60.** Care of, 76. Grubbing, 64. Planting, 62. Varieties to choose, 76.

Fruit trees-[See also names of fruit trees. Fungus diseases, 64, 73. Gaillardias, 132, 148. Garden, 154-155, 190. Benefits of, 12, 13. Birds in, 188. Care of, 9-12, 160-162. Colonial, 167, 168. Colors, 147, 148. English and early American, 167. Italian, 167. Lilies and iris, 165, 191. Planning for, 228. Preparation of, 172, 195, **939.** Uses of, 160, 189. [See also kinds of gardens -Flower, Fruit, etc.] Geranium, 129. Gladioli, 177, 183, 184. Color effects, 145, 146, 148. Roots, care of, 209. Godetias, 150. Golden glow, 148, 206, 222. Gooseberries, 79, 80, 223. Grapes, 77, 80. Varieties, 78. Wild, 97, 126. Grape vines, 62. Grass, 214, 215. Grubs, 72, 135. Gumbo soup, recipe for, 40-42.

Hardy perennials, 925-996. Hedges, 18. Vegetable garden, 19, 217. [See also names of hedges-Box, etc.] Helianthus florus plenus, 132. Helianthus multiflorus plenus, see Sunflower. Hemerocallis florham, see Day lily (yellow). Hemlock, 114, 193, 195. Hemlock spruce, 18, 76, 217. Herbs, 52-53. Hibiscus, 153, 226. moscheutos, 142. Hickory tree, 104, 110. Hollyhocks, 145. Flowering, 129, 214. Good garden flowers, 226. Seeds, 151, 196. Spraying necessary, 220-**22**1. Suitable for edges of shrubberies, 142. Honey-locust, 217. Honeysuckle, 118, 126, 215. Horse chestnut, 107.

Insectides, 220.
Iris, 148, 173, 184, 206, 226.
German, 144, 178, 208.
Japanese, see that title.

Hyacinths, 205, 216.

Hyacinths (water), 153.

Hydrangeas, 126, 148.

Hyacinthus candicans, 145.

Varieties of, 174, 178.

Irish juniper, 116, 118.

Irish yew, 120, 121.

Italian and Colonial gardens, differences, 167.

Ivy, English, 187, 219.

Japanese, love of, for fruit trees, 57-58. Japanese anemones, 149, 903, *9*24. Whirlwind, 227. [See Anemone.] Japanese cedars, 120. Japanese cypress, 120. Japanese iris, 138, 144, 145, 174. Beginning of blooming, 147, 178. Flourishes in wet places, 153. Separation of clumps, 208. Japanese lily (wallacei), 175, 180. Japanese quince, 195. Japanese snowball, 126. Japanese tree pæonies, 143. Jerusalem artichoke, 142.

Larch, 107, 110.

Larkspur, 129, 144, 148, 196, 202.

Laurel, 97, 218.

Mountain, 217.

Junipers, 121.

Lavender, 52, 53. Lettuce, 38-39. Lilacs, 218. French, 125. Liatris, 139. Lilies, 57. Care of in May, 225. Color effects, 148. Garden of lilies and iris, 165. Planting bulbs, 175. Soil best adapted for, 173. Varieties, 175, 184-185. Auratum lily, see that title. Brazilian, 177, 179. Madonna, 166, 178, 203. Melpomene, 182. Rubellum, 179, 185. Scarlet Turk's cap, 180. Tiger lilies, see that title. [See also names, Lilium, eto.] Lilium album, 145, 152, 182.

Lilium album, 145, 152, 182.
Lilium auratum, see Auratum lily.

Lilium Batemanni, 175, 180. Lilium Brownii, 175, 180, 185. Lilium Canadense, 175, 179, 185.

Lilium Candidum, see Madonna lily.

Lilium Chalcedonicum, see Scarlet Turk's cap. Lilium excelsum, 175.

Lilium gigantium, 182.

Lilium Krameri, 175, 179, 185. Lilium Leichtlinii, 181. Lilium Leichlinii rubellum, 175.

Lilium longiflorum, 180, 185. Lilium speciosum album, 175, 185.

Lilium speciosum rubrum, 144, 175, 182, 185, 204.

Lilium superbum, 175, 181, 185.

Lily of the valley, 205. Lima beans, 28-29.

Lime, salt and sulphur spray of U. S. Agricultural Department, 71.

Linden, 107.

Lobelia, see Cardinal flowers.

Locust, 76, 107, 124.

Lombardy poplar, 108-109.

Lonicera alba, see Honeysuckle.

"Loose strife," 153.

Lotus, Egyptian, 186.

Lupins, perennial, 138.

Lychnis, 148, 146.

Lysimachia, see Loose strife.

Magnolia, 110, 217, 218.

Conspicua, 108.

Soulangiana, 108.

Maples, 103.

Mariesi, 226.

Marigolds, 148, 196.

Marshmallow, 142.

Melons, 50, 87, 88.

Microbe diseases in fruit trees, 64.

Monkshood, 129, 144, 149, 231, 225.

Montbretias, 224.

Mountain laurel, 217.

Mushrooms, 39-40, 60-61.

Musk melon, varieties of, 88.

Narcissus, 205.
Nasturtiums, 196.
Native trees, 94.
Nelumbium Speciosum, 171, 186.
Nitrate of soda, 26, 76.
Nitrates, 68.
Norway maple, 103.
Norway spruce, 123.
Nymphae (English), 186.
flava (English), 153.
odorata rosea, 153.
[See Water lilies.]

Oak, 103, 110, 124.

Oenothera lamarchiana, see

Evening primrose.

Okra, 40-42.

Onions, 42-44.

Oriental poppies, 142, 226.

Pæonies, 57, 142, 166.

Among currant bushes, 79.

Blooming at end of May,

147.

Pæonies— Early appearance in Spring, **914**. Treatment of plants in Fall, 207-208, 234. Pansy, 197, 198. Paris green, spray of, 50, 64. Parsley, 44. Parsnips, 44. Paths, 231, 232. Peaches, 70-74, 80. Pears, 68, 80. Peas, 22, 44-47. Penstemon, 146, 148, 226. Digitalis, 136. Barbatus Torreyi, 135. Peppers, 47-48, 51. Perennials, 129-162. Compared with bedding-out plants, 129. Effect of cold on, 132. Hardy, 225-226. Increasing stock of, 131. Value of, 130, 131. Petunias, 129. Phlox, 129, 131, 148. Cocliquot, 146. Differences in color, 151. Division of roots, 206. Drummondi, 145, 149, 150. Early appearance of, 214. Satisfactory garden flowers, **226.** Pink, 144. White, 145.

Pin oak, 103.

Pine trees, 76, 114, 199-193, 195. Plane tree, 110. Plant diseases, 222. Planting— Arrangement of borders, 227. Autumn planting, 903. Blackberries, 81. Catalpa, 105. Currants, 79. Deciduous trees, 99. Dogwood, 104. Evergreens, 112, 116. Grapes, 77-78. Iris, 175-176. Lilies, 175-176, 904. Raspberries, 82. Shrubs, 218. Strawberries, 83. Time of, 137, 139, 149, 151, 152, 154, 177, 183, 186, 195, 197, 198, 201, 203, *905, 224, 225.* Willows, 102. Plants--Affected by frost, 905. Covering for winter, 210. For edges of shrubberies, 142. Tying up, 160. With blue flowers, 138, 139. With white flowers, 136, 137, 138. With yellow flowers, 141.

143.

Platycodon, 141, 144, 145, 226.
Plums, 74-75, 80.
Pollen, mixed by bees, 50.
Pond lilies, see Water lilies.
Pool, method of making, 168.
Poplars, 109, 110.
Poppies, 146, 147, 148, 196.
Oriental, 142, 226.
Privet hedges, 118.
Pruning, 218-219.
Grapes, 78.
Trees, 111.
Purple beech, 104.
Purple lilac, 125.

Quince, 75.
Japanese, 125.

Radishes, 48. Raspberries, 80, 82. Replanting, 206. Retinispora, 120, 123. Retinispora plumosa, see Japanese cypress. Squarrosa, 120, 131. Rhododendrons, 153, 189, 217, *2*18. Maximum, 97. Rhubarb, 22, 48-49, 53. Rockets, 145. Roses, 147, 149, 166, 203, 221, *2*25. Baroness Rothschild, 119. Climbing, 215, 222. Clotile soupert, 149. Climbing Rambler, 118, 148,

Ever-blooming, 216.
Hybrid perpetual, 119.
Jubilee, 149.

Kaiserin Augusta Victoria, 119.
La France, 149.
Madame Plantier, 149.
Margaret Dixon, 119.
Mont Brutus, 203.
Mrs. Lang, 149.
Sweet briar, 97, 119.
Soupert (pink), 149.
Winchuriana, 118.
Rudbeckia, see Golden glow.

Sage, 52, 53. Salsify, 49. Salvias, 129, 146, 148, 151, 152, *2*00. San José scale, 71. Savory, 52. Scabiosa Caucasia, 144, 226. Scarlet Turk's cap, 175, 180. Scotch pine, 122. Seeds---Gathering, 196, 197. Mistakes in color, 150-151. Seed bed-Preparation of, 226. Shearing time for certain trees, 123. Shrubs, list of, 125, 126. Planting, 218. Siberian arbor vitae, 18, 217. Small fruits, 60.

Snap dragon, 149. Snowball, Japanese, 126. Snowdrops, 205. Soil— Preparation of, 168-169, 171, 172, *2*30. for melons, 87. Sowing— Seed in hot-bed, 151. Time for, 215, 226, 227. [See also names of plants.] Speedwell, 139. Spinach, 22, 49-50. Spiraea, 226. Spiraea aruncus, 131. Spiraea palmata, 144, 146. Spiraea von Houttei, 147. Sprays-Bordeaux mixture, 37, 50, 64, 73, 75. Lime, salt water and sulphur, 71. Paris green, 50, 64. Tobacco water, 66. Spraying— Fruit trees, 76. Gooseberries, 79. Time for, 221-224. Spray machine, 220. Spring work, 213. Spruce trees, 120, 123. Squash, 50. Standard box, 219. Stocks, 149. Storage of plants, 121.

Strawberries, 80, 82-87. Varieties, 87. Stream or pond, use of, 152-153. Sugar maple, 103. Sulphur, use on lily bulbs, 174. Sumac, 97. Sunflowers, 142, 148, 196. Double, hardy, 226. Sweet corn, 35-37. Sweet peas, 196, 215. Sweet Sultan, 145, 149. Sweet William, 147, 196, 201, *226.* Sycamore (plane tree), 110. Syringas, 147, 218. Grandiflora, 125.

Thuja pyramidalis, see Arbor vitae. Thuja Vervaeneana, see Arbor vitas. Thyme, 52. Tiger lilies, 177, 181, 185, 197. Tilia, see Linden. Tobacco water spray, 66. Tomatoes, 51, 53. Transplanting, 202. Deciduous trees, 94, 95. Evergreens, 113, 115. Poplars, 110. Seedlings, 201. Trees and shrubs, 97, 110. See also names of plants; Gardens.

Trees, 93-126.
Cultivation of, 101.
Growth of, 101.
Lists of, 124.
Method of transportation, 96.
Trilliums, 142.
Tritomas, 132, 203, 224, 226.
Pfitzerii, 146, 150.
Trumpet creeper, 118, 215.
Tulips, 152, 205, 214, 216.
Tulip tree, 98, 110, 124.
Blooming, time for, 110.
Native, 110.
Turnips, 51-52.

Valerian, 129, 145, 224. Greek, 139, 144. Vegetable garden, 17-54. Drainage, 20. Economy of, 9, 53-54. Fertilization of, 20-21. Hedge for, 18-19. Laying out, 17-20. Planting of, 21-22. Preparation of soil, 31. Size of, 17. See also names of vegetables. Vegetable seeds, 53-54. Verbena venosa, 144. Veronica, 129, 139, 144, 226. Longifolia, see Speedwell. Viburnum plicatum, 118, 126. Vines, 97, 126, 215. Virginia creeper, 97, 126.

INDEX

Vitis odorata, 196.

Wallacei, see Japanese lily.

Walnut tree, 104.

Walpole, Horace, his Essay on "Modern Gardening," 199.

Water Garden, see Stream or Pond.

Water hyacinths, 153.

Water lilies, 153, 186-187.

Watermelons, varieties of, 88.

Weeping birch, 104.

White birch, 104, 194.

White oak, 103.

White pine, 76, 114, 195.

Wild vines, 97.
Willow trees, 102, 152.
Winter, effect of, when unusually severe, 118.
Wistaria, 57, 118, 126.
Witch hazel, 97.

Yellows, 71. Yew, Irish, 120. Yuccas, 226.

Zinnias, 149, 150.

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BY HELENA RUTHERFURD ELY

Author of "A Woman's Hardy Garden," etc.

WITH ILLUSTRATIONS MADE FROM PHOTOGRAPHS TAKEN
IN THE AUTHOR'S GARDEN
BY PROFESSOR CHARLES P. CHANDLER

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Dedication

TO ALFRED ELY

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PREFACE

IN writing this little book, I have given I only the result of my own experiences in raising vegetables, fruits and flowers, during a period of many years. It is not intended to be a treatise upon any of the subjects referred to, or in any way to take the place of the many admirable books upon gardening. It is a brief statement of simple methods of conducting gardening operations, particularly in the small home garden. If it gives any help, however little, to its readers, and serves to interest those who are already cultivating their own gardens, or causes others to make a beginning in the fascinating art, its object will have been accomplished.

Meadowburn Farm November, 1904.



TABLE OF CONTENTS

CHAPTER	k		PAGE
I.	Introduction	•	1
II.	The Vegetable Garden	•	16
III.	Fruits	•	55
IV.	A Little about Trees	•	91
	Deciduous Trees	•	103
	Evergreens	•	111
V.	Perennials and Other Flowers .	•	127
VI. ·	A Garden of Lilies and Iris .	•	163
VII.	Autumn Work in the Flower Garden	•	193
VIII.	The Flower Garden in the Spring		211

			·
	•		
		•	
			·

CCC0 3	n 1						1	Pacin g Pagb
The 1	Pool July twenty-	fifth	•	•	•	Frontis	pioce	
A cor	ner for aft	ernoon	tea	•	•	•	•	8
	ers filled wi June twenty	_	nnial	s and	ann	uals	•	7
	of Penstem July fourth	on Alb	.	•	•	•	•	10
	s of Hyacin August twen		andic	ans	•	•	•	14
	e fringed P July ninth	oppies	•	•	•	•	•	19
•	gle blossom September s			Japon	nica '	Whirlw	rind	23
	ne end of a August tenti	_	•	•	•	•	•	27
	all shrubbe September n	•	•	s afte	r pla	unting	•	80
	ers and vinc July fifteent	_	ed per	rgola	•	•	•	87
	d of Anemo September n	_		Whi	rlwii	nd.	•	44

		y	ACING PAGE
Arbor Vitæ Pyramidalis	•	•	53
An entrance to the Lily garden . September eighteenth	•	•	60
Cedar tree transplanted from the woods September twentieth	•	•	69
Tall pointed cedars in the Lily garden July twenty-third	•	•	76
The Lily garden in Auratum time . July tenth	• •	•	83
White Birch eight years after being plan	tad		
as a small tree about four feet high September seventeenth	•	•	94
Young Irish Yew	•	•	99
Cut leaved Maple, eight years after pla	nting	98	
a tiny tree	•	•	101
Catalpa Bungii four years old . July seventeenth	•	•	108
Three Evergreen trees dug from the wood July twenty-third	ds	•	110
Standard Retinispora Plumosa . August twenty-seventh	•	•	115

					Y	ACING PAGE
Horse Chestnut tree after planting . September fourth	(slow	growi •	ng) ei •	ght y	ears •	119
Hop Hornbeam, a racompact form, eig September twenty	hteen y		_			122
Thuja Vervæneana August twelfth	•	•	•	•	•	126
Vase of Campanula I August twenty-fir		lalis	•	•	•	188
A single plant of Plant July tenth	itycoao	n.	•	•	•	185
Vase of Giant White July tenth	Poppi	es	•	•	•	188
A clump of Veronica August tenth	Longij	folia	•	•	•	140
Boconia Cordata . July seventeenth	•	•	•	•	•	147
Vase of <i>Platycodon</i> July tenth	•	•	•	•	•	151
A little pond ready for October ninth	or plan	nting	•	•	•	154
Vase of <i>Dictamnus</i> May twenty-fifth	•	•	•	•	•	158
Vase of Columbines May twenty-fifth	•	•	•	•	•	161

			F	acing Page
A single blossom of white Japanese July fourth	e Iris	•	•	163
Hydrangeas around the pool . July twenty-third	•	•	•	167
Vase of Siberian Iris, May twenty-fifth	•	•	•	170
Vase of "Brazilian Lilies". June eleventh	•	•	•	172
Vase of Striped Japanese Iris . July fourth	•	•	•	176
Spanish Iris June eleventh	•	•	•	179
A clump of white Japanese Iris July third	•	•	•	183
Nelumbium Speciosum September twentieth	•	•	•	186
Vase of Lillium Longiflorum . July tenth	•	•	•	190
Vase of White Japanese Iris . July fourth	•	•	•	197
Pale violet Japanese Iris, veined w July third	ith pu	rple	•	205
Lillium Longiflorum July tenth	•	•	•	209

				Pacing Page
Vase of Lillium Krameri July fourth	•	•	•	. 215
Pale Lilac Centauria July tenth	•	•	•	. 218
Funkias	•	•	•	. 224

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CHAPTER I

INTRODUCTION

THE aesthetic side of Nature has always appealed most strongly to woman. The shadows on the mountain side, the deep green coolness of the forest, the mighty trees and tropical-like foliage of the thickets, the murmur of the splashing brook, the golden lights in its still brown pools, and the clear blue lake, all fill her mind with dreams; troubles and cares flee away, and she is transported to the world of imagination.

Man, alas! looks upon the brook with its quiet pools as a sure place for trout. In the forest he hopes to meet a deer, perhaps a moose, possibly, if he be very brave, a bear. For him the thicket is but a covert for quail, pheasant, or partridge, and the

ANOTHER HARDY GARDEN BOOK

blue lake a likely place for fish, or the wild duck. The primeval love of the chase survives as a passion in his heart. Chained perhaps to city and office and free for only a few weeks in the year, he plans all the long months to get away for these weeks into the wild, and to kill something, not only for the savage joy of killing, but that he may eat. Eating! how much of the tragedy and pleasure and anxiety of life surround the word! Tragedy for the unfortunates whose light is extinguished for lack of food, and of whose pangs those who only know enough of hunger to call it good appetite, can have no conception; and pleasure to the agreeable people who meet around a dainty, well-served table to share a well-cooked meal! Best of all, perhaps, the dinner or luncheon tête-à-tête, or with a party of congenial spirits whose talk can be the spice of life. With breakfast, luncheon and dinner coming as regularly as night follows day, how rarely do we think

INTRODUCTION

of the anxiety and the labor that have gone to their production.

The world is inhabited by bread winners toiling for a home and for food. It may be that the home is but a hovel and the food only the portion necessary to sustain life. Or the "home" may be town and country house, with villa by the sea and mountain camp. Yet the toiler is back of it all, working with head or with hands; and with all, the object is still the same, with a difference only in degree.

Idlers in the market place are comparatively few and are but ciphers in the world. The man whose fortune is inherited, who accepts his wealth as a trust, and feels that his money and his position bring obligation, to whose generosity and continued care we owe hospitals, trade schools, universities and other institutions, has really less freedom from care and less time absolutely his own than the craftsmen and laborers, whose daily toil alone provides their daily needs.

ANOTHER HARDY GARDEN BOOK

Was there ever a man whose life has been told in prose or song, whose days, for a time at least, were so gentle an idyl as those of Elijah by the brook Cherith, when, worn with the stress of life and with journeying to and fro in the earth, he came to dwell in the shade by a murmuring brook and was fed by the birds? With no care and no anxiety, he had time to rest and to commune with Nature. And when the water of the brook ran low and quietude began to pall and the ravens' diet grew tiresome, he was sent to the house of a widow, probably young, for her son whom he was able to restore to her from death was a child, and certainly comely. For are not all widows comely, and do not all men and most women admit, that for charm and magnetism and knowledge of the ways of mankind, other women compared to a widow are as "moonlight unto sunlight, and as water unto wine"? Moreover, Elijah's widow had a taste for culinary matters, for her



Borders filled with perennials and annuals June twenty-fifth

INTRODUCTION

cakes were light and good and she had many ways of making them.

Is there not a saying about the way to a man's heart? But are not many women often indifferent to what they eat? The table must be orderly and attractive and the cooking good, but for them food is rather a necessity only. Were it not for other members of the family many women would, I imagine, be quite content to live on simple things, milk and cream, fruit and nuts, with possibly some of those wonderful breakfast foods whose merits for health and eternal vigor are recounted in the advertising pages of every magazine and newspaper and stare at one from bill-boards, in trolley car and station.

Most men who care for gardening devote themselves rather to the utilitarian side of the craft. They are deeply interested and generally successful in producing the finest vegetables and fruits, while flowers come as a secondary consideration. May this not be

due to an inherited trait of ancient date? Primitive man, having been obliged for centuries to provide the food for himself and those dependent upon him through the chase and the tillage of the soil, it may be that his descendants of to-day in moments of leisure still turn instinctively to Mother Earth for delicacies for their tables, and leave to women the aesthetic part of gardening.

A woman's heart in gardening is with her flowers and shrubs, and the raising of vegetables is often a propitiatory offering to the other members of the family, who might otherwise accuse her of too much attention to the merely ornamental and beautiful. But if she care at all for growing things, she will naturally do what she can to make the vegetable garden successful; she will see that as many varieties as possible are grown, and that if possible her table is supplied, throughout the season, with fruits and vegetables from her own

INTRODUCTION

garden. She will even compete with her neighbors for the first peas or corn. Who does not know the mortifying question, "Have you had peas from your garden yet?" The condition of mine when others have announced that "they had them last week" has often induced in me the secret thought that their "peas" must have been only "pods."

In taking women through my flower gardens I have never heard one ask about the vegetable garden, but I do not remember a single instance of showing the flowers to a man who failed to inquire with a strong note of interest about the vegetable garden.

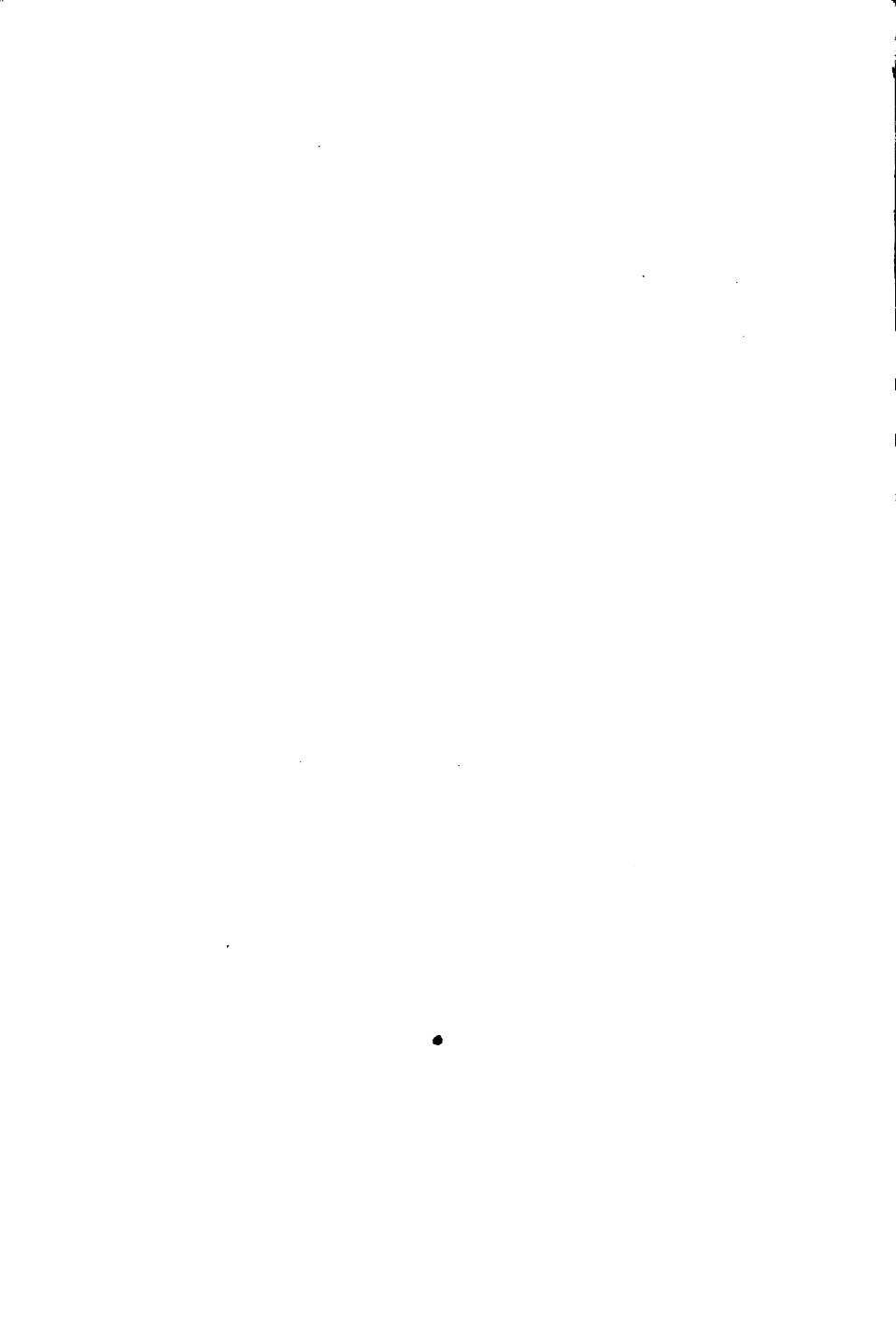
Aside from the pleasure of raising your own vegetables, and their superiority in freshness and delicacy, it is certainly an economy, and if the work be done regularly the garden is easily kept in order.

All well-ordered houses are run systematically, certain work being done on certain days. The garden must be attended to

with the same system. Every part of the work should have its special time and be carefully laid out. The men in a large garden thus know what is to be done each day; and if but one man be kept he will easily accomplish more with better results than if the work be done in his own pottering way. If the same routine be followed in a little garden cared for by the members of a family, each bed or border weeded on a particular day, vines and plants tied up, grass cut, edges trimmed with shears, and all the other necessary things done regularly, then the garden will be always in order, and weeds will have no chance to become rampant.

The impetus that gardening has lately received in this country has resulted in the greatest improvement in towns and villages. But what makes more for general and most-to-be desired improvement and beauty is not the half dozen fine places in a town, but the many streets lined with pretty unpre-

Vase of Penstemon Alba July fourth



INTRODUCTION

tentious houses, each with neat lawn and flower borders, a few shrubs, two or three good trees, and having in the rear a small vegetable garden, all cared for by the owner, with perhaps a man for a day now and then.

If the vegetable garden be gone over carefully once a week, every weed taken out by the roots, and the earth well stirred and loosened with the hoe or cultivator, the vegetables will thrive and the place always look neat. If the garden be good-sized, a cultivator, with its array of tools, will be found a great saving of labor; but if small, a rake, spade, hoe and trowel will answer every purpose.

Where the place is too small for a complete vegetable garden, a plot of ground twenty feet by thirty, if well fertilized and well cared for, will yield enough tomatoes, cauliflower, egg-plants, peppers, lettuce and parsley for a family of eight persons. On this plot there is room for four dozen cauli-

flowers, four dozen egg-plants, two dozen pepper plants, three dozen tomato plants, three crops of lettuce, and sufficient parsley.

But little time is required for the care of so small a plot if it be regularly attended to. The plants can be raised from seed sown the first of March in boxes in sunny windows, or in a small hot-bed, or they may be bought about the 18th or 20th of May, which is the time to set them out. Two of the seedsman's packets of each variety of seed, costing but five cents each (except the Cauliflower, which is ten cents), will raise more than sufficient plants.

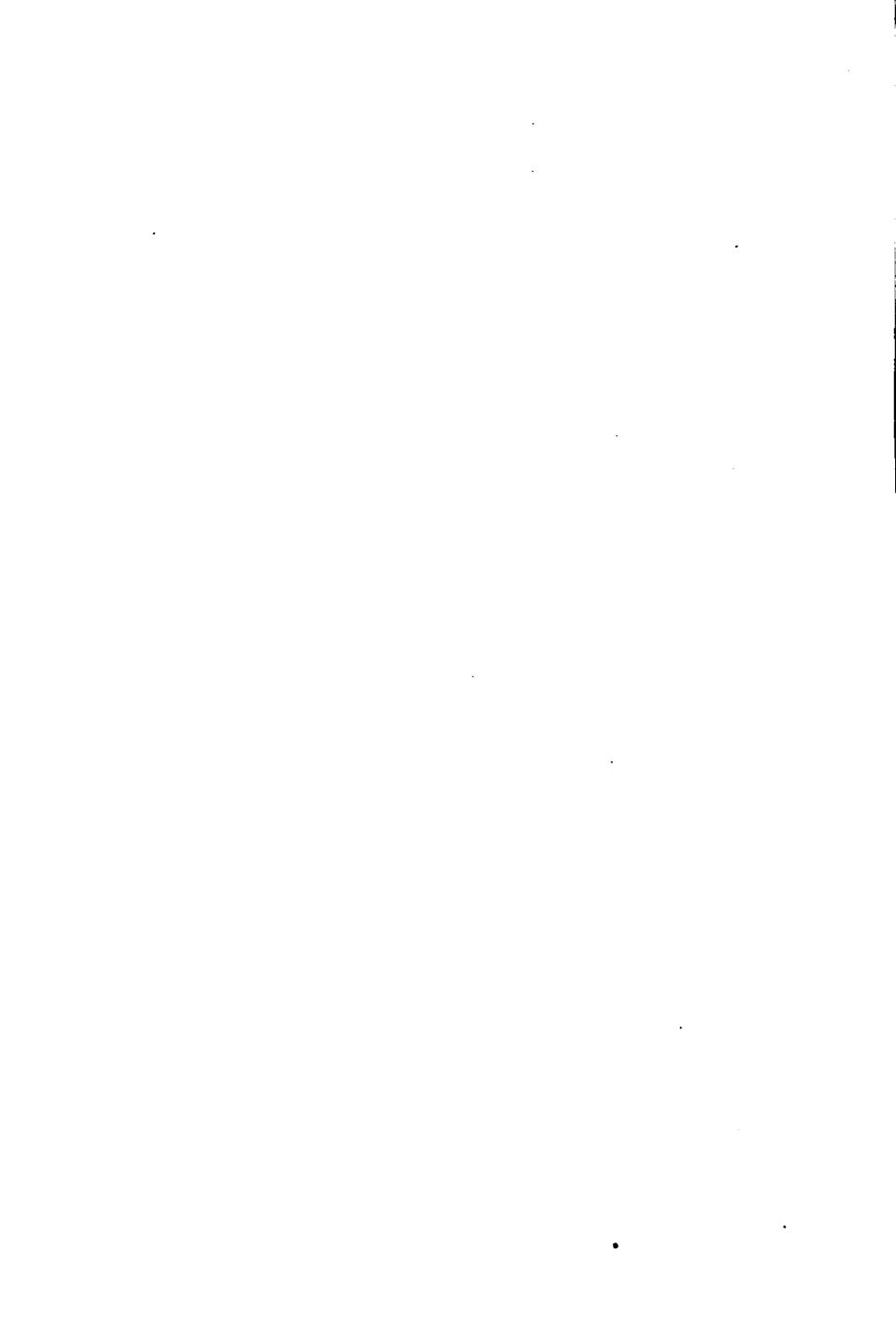
I should like to see every little house with even a bit of ground about it, beautified with vines and shrubs and ferns planted closely about the foundations of the house, with flower borders along the fences and dividing lines, and with a little patch of vegetables in the rear.

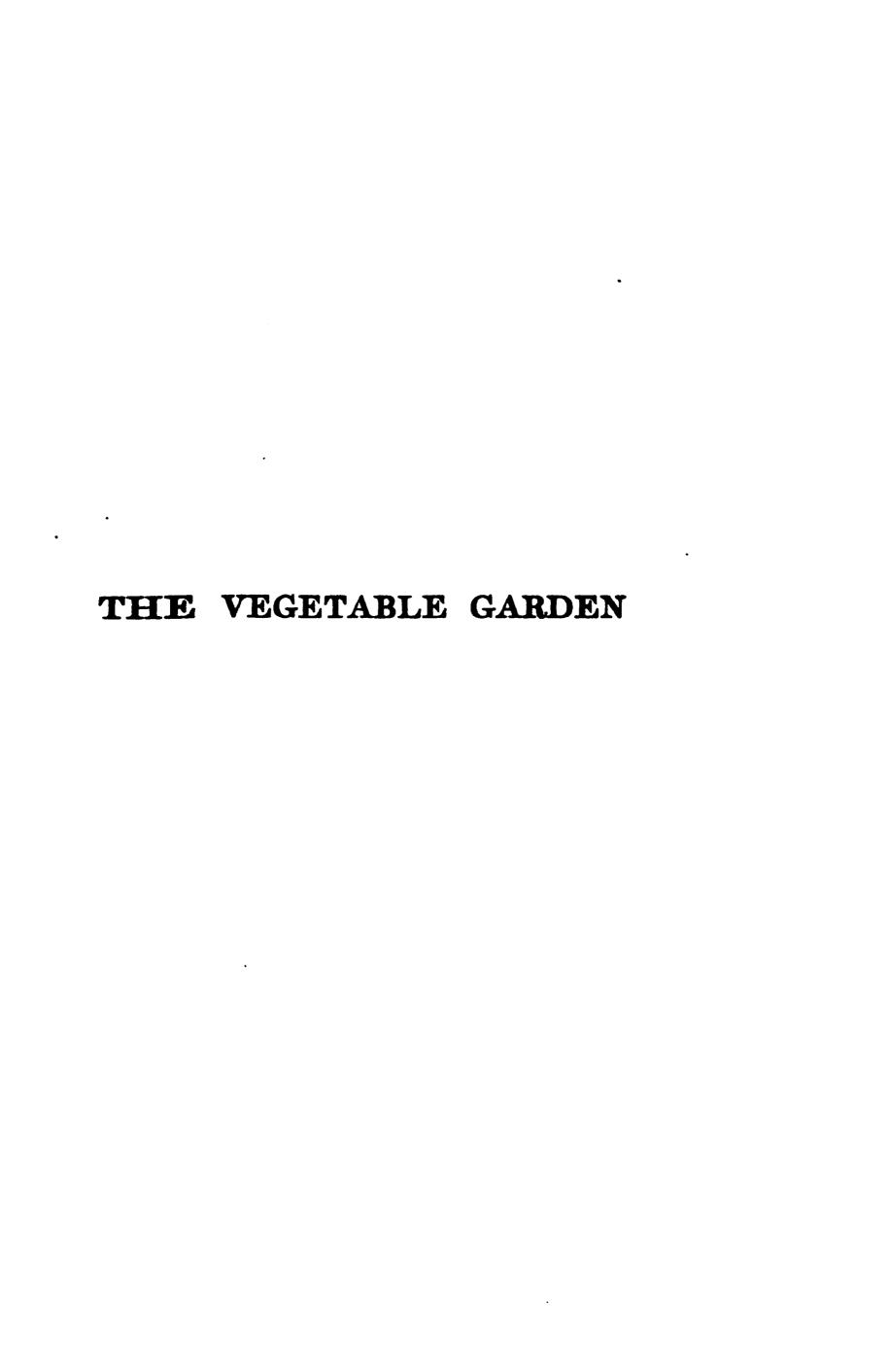
A home is always more a home when the outside is cultivated and made beautiful.

Go out into the country, oh ye flat dwellers of the city, and make a home; have a few rods, if no more, of your own ground about you and till it, and tend it; the flowers you raise will be sweeter and more beautiful to you than any displayed in florists' windows, and no vegetables that can be bought will compare in flavor with those you will raise yourself. If every woman blessed with a place of her own would do what she could to interest her humbler neighbors, giving them seeds, plants and shrubs from her own garden, telling how they should be planted and cared for, and interesting the children in raising flowers and vegetables, the result would be not only a beautified community, but a bond of sympathy between people in all walks of life, with a softening and refinement of character that comes from the spread of the love of Nature.

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Stalks of Hyacinthus Candicans
August twenty-first





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CHAPTER II

THE VEGETABLE GARDEN

THE size of the vegetable garden will naturally depend upon the space at your disposal. Let everyone with even a little ground give a certain portion, no matter how small, to the growing of vegetables, and if possible, raise enough of these good things to supply the home table and occasionally to spare a choice basketful to a less fortunate friend.

The vegetable garden, if a large one, should always be laid out so that access can be readily had to all parts of it, either by horse and cart or with a wheelbarrow.

I have a lasting monument to my own short-sightedness in a garden laid out in Box-edged plots. There is ample room for a horse and cart to pass between the plots,

but no place to turn, so the cart must be backed out the way it came in; and of course, neither cart nor wheel-barrow can fly over Box-edges, so the cart must be unloaded into the wheel-barrow and a bridge of boards made over the Box-edging, in the Spring to bring fertilizer and in Autumn to carry away rubbish. There is no way of remedying this serious fault but by rearranging the entire garden, and the trees and plants have now acquired such a fine growth that I am unwilling to take this radical course, so the work must be done under the consequent disadvantage and loss of time.

An ideal vegetable garden is surrounded by a hedge of Siberian Arbor Vitae, or Hemlock Spruce; both are beautiful to look at, either through the Winter months when anything green is so restful to the eye wearying for verdure, or in Summer when the feathery shoots of light green are things of beauty. An evergreen hedge is also valuable both as a wind break or protection in



Large fringed Poppies July ninth

Spring and Fall, and as a screen during the Winter, when, in the absence of snow, bare earth only is visible and the vegetable garden is unattractive.

Running around the garden, inside the hedge, there may be first a border six feet wide, where herbs and various perennial flowers for picking can be grown. At one end, with the right exposure, and the hedge at the back, an excellent place can be found for cold-frames and hot-beds. Inside this border, unless your space be limited, there should be a broad path, certainly eight feet wide, for a horse and cart to pass around the garden, which should be intersected at right angles by wide paths crossing the garden in each direction through the center, leaving four plots of equal size, one of which should be devoted to small fruits, unless there is space for them elsewhere. This is a most practical plan for a large garden which can be both a flower and vegetable garden by making additional borders from

four to six feet wide for flowers along the four front sides of each plot, leaving the middle of each plot for the vegetables.

If your ground be so limited that provision can be made only for vegetables, the same general plan may be followed, omitting the borders for flowers and narrowing the paths in proportion. These, however, should not be less than three or four feet wide, that a wheel-barrow may pass comfortably in all directions.

The vegetable garden should be on well-drained land made as nearly level as possible. Where the ground slopes, fertilizer and top soil will be washed by heavy rains to the foot of the slope, and in dry weather the earth is more likely to become hard and caked. Fine seeds, too, when sown on an incline, may be washed away if heavy rains come before they germinate. Ground not naturally level can be terraced.

Light rich loam, which is the ideal garden soil, is not possessed by all, so the next best

thing is to help the natural soil by giving it the lacking constituents. Plenty of wellrotted stable manure, muck from low lands if it can be had, wood ashes, bone meal, a sprinkling of air slaked lime, and, if the soil be stiff or clayey, some sand may be added.

If the vegetable garden is large, the parts where corn, beets, and beans are to be planted can be broken up first with a plow and thoroughly harrowed before raking, otherwise let the ground be well spaded and the earth thoroughly pulverized, then smoothed down with a rake. Proper preparation of the soil is the first essential for the production of good crops; then if the ground be frequently stirred and kept free from weeds, you cannot fail of success.

Having arranged and prepared your ground, then comes the planting.

Vegetables should always, if the space permits, be planted in rows, as this facilitates cultivation and lightens the labor.

All the space at your disposal should be constantly utilized and the moment one crop has finished bearing, it should be pulled up, some more fertilizer spread, the ground again spaded and raked, and another crop sown. For instance, a second crop of beans can follow the spring spinach, and the third crop of peas may be grown where the first beans ripened. Carrots can follow the first crop of peas; celery the second crop, and so on. Beans, peas, etc., can follow each other on the same soil if it be well enriched and again prepared before each planting, but it is preferable to follow one crop by another of a different variety.

Asparagus, rhubarb, and currants, which no garden, unless very small, should be without, are long-lived and hardy, and if planted carefully in the first instance, will keep in fine condition and bear for many years, with the simplest care.

The following vegetables are grown in

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A single blossom of Anemone Japonica Whirlwind September seventeenth

most gardens of any size, require no special skill, are easily raised, are, most of them, in their season, on the menu of every good housekeeper when she can procure them, and give a sufficient variety for any ordinary household:

Artichokes:—The French Globe is the best variety. Seed may be sown in boxes in the house, or in the hot-bed about March 1st and the plants set out in the open ground the end of May in rows two feet apart each way. The soil should be a rich deep sandy loam with plenty of well-rotted manure. If sown very early and the season is favorable, artichokes will begin to appear in September. But as a rule they do not yield until the following season. Being perennials, they will bear any number of years. North of Washington the plants should be tied to stakes in November and the spaces between the rows and also between the plants filled in well over the tops of the plants with earth, and a good coating of stable

litter placed over all; or they may be lifted and kept over the Winter in a pit or cold frame. Not very much grown in this country, they are certainly worth the trouble, as no vegetable is more delicious.

The edible part is the flower head, which must be cut before the flower expands. Artichokes for eating are boiled and well drained, and served with a Hollandaise sauce, or placed on ice after boiling until they are cold and eaten as salad with French dressing. Or again, after cooking, the heart, or "fond," as the French call it, is removed from the leaves and served in various ways.

One ounce of seed will raise a sufficient number of plants.

Asparagus. When there is space there should always be an asparagus bed. There is trouble in making it, but once done it is there for years to come. For a family of eight, four rows twenty-five feet long and three feet apart will give an ample supply. But double the space can well be given

to the asparagus bed. Make four trenches, each sixteen inches deep, three feet apart and twenty-five feet long; put six inches of well-rotted manure in the bottom and cover this with four inches of rich garden soil; then set the plants eighteen inches apart, spreading out the roots carefully, and fill up the trenches with good earth. It is a saving of time to buy the plants, and if two years old, they may bear the year after they are set. If one-year-old plants are used, the bed should not be cut for two years.

Asparagus should be set out in the Spring. Care must be taken to have the manure well packed down and the plants firmly set in the earth. In the very early Spring, the third week of March if not before, the Asparagus bed should receive a thick coating of stable manure, which must be well forked into the ground at once. In early Summer, as soon as the bed has ceased bearing, sow over the surface of the bed two bags each

of bone meal and nitrate of soda which have been well mixed.

The crowns of the plant and the buds which form the stalks for the following year, make their growth during the Summer, which is, therefore, the time to feed them. The old practice of covering the bed with manure in November and forking it into the ground in Spring has been done away with, and instead the plants are stimulated at the time of growth. From time to time before sowing the nitrate of soda and bone meal, some of the earth should be removed from over the plants so that the tops of the crowns are not more than three inches below. the surface. Formerly everyone sowed salt on the asparagus bed, but I have not found that it serves as a fertilizer, but rather to kill the weeds, which grow rapidly in the rich soil.

Because of its rich earth there is no better place than between the rows of the asparagus for cauliflower and egg-plants,

and their cultivation will keep the bed free from weeds after it has ceased to bear.

An asparagus bed should never be cut too closely. Leave three or four stalks on each plant to mature, so that the roots may be better nourished.

Beans are easily injured by frost, so that it is not safe to sow the first crop before the 10th of May unless the season is very early. Make the drills two inches deep and eighteen inches apart, drop in the beans every three inches and cover them with about two inches of earth. Four crops can well be planted, and the rule in our garden is to plant the second crop when the first is about four inches high, and the third when the second planting has reached the same height. The last crop can be planted the first week in August.

Two quarts of seed will be sufficient for all the plantings for a family of eight. There are many varieties; each seedsman has some specialty, and the same variety often

appears under different names, but the small, crisp, green-podded ones are infinitely the best.

Beans are so easy to produce, that gardeners are apt to raise a larger quantity of them than of any other vegetable. A friend who has a large garden and employs several men, told me recently a story of his experience last year with beans and gardeners. He had asked his head gardener in the spring about mid-April if he had begun the vegetable garden, and the man replied, "Not yet, it is too cold and wet." To a similar enquiry in mid-May the reply was, "It is too warm and dry." As a result, little else but the prolific bean was raised in that garden during the Summer, all the other vegetables being sent out from town; but beans large and beans small, in great quantities, were brought in daily by the gardener until finally not a member of the household would partake of them longer.

Lima Beans are among the most tender

of the vegetables and must not be exposed to any frost; therefore in the locality of Central and Southern New York the last week in May is early enough to plant them. Make hills two feet apart in rows two and a half to three feet apart. Set poles eight feet or more in height firmly in the center of each hill and then plant the beans about five to a hill. As the plants grow they must be wound about the poles.

A quart of Lima beans will be enough for one family.

Beets. The small dark red round Beets are the best. The first crop can be sown in the Spring as soon as the frost is well out of the ground, and afterwards every three weeks until the 1st of July, when the last crop should be put in. Sow the seed in drills a foot apart, covering with about two inches of earth; when three inches high thin out the plants to three or four inches apart. Beets are only fit to eat when they are young, sweet and juicy, so do not sow

too many at one time. Two ounces of seed will be sufficient.

Brussels Sprouts. Most books on vegetables tell one to sow the seed in hot-beds or cold-frames, but I have always had the seed sown thinly in drills in the open ground about the middle of May. When well up the plants are thinned out so that they stand about a foot apart, in rows eighteen inches apart. They require no particular culture beyond being well hoed once a week.

When the sprouts begin to form, the leaves should be stripped from the stalk, leaving only three or four at the top; the sprouts are ready to be eaten in October. A touch of frost much improves them, and by the end of October the crop can be gathered and stored in baskets in a cool, dry cellar, where they will keep well. I think they are horrid things myself, and grow them only as a concession to a certain member of the family who adores them and

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whom I endeavor in sundry ways to placate. After stripping off the outer leaves and washing them carefully, place enough for eight persons in a double boiler with two tablespoonfuls of butter, a little salt and a dash of pepper. The water in the under boiler must be kept madly boiling for three hours. Thus steamed, not boiled in the usual way, they will be found really delicate.

One ounce of seed will raise a goodly quantity of plants.

Carrots. Two crops of carrots are generally sufficient; these can be sowed about the 15th of May and again the 1st of July. Sow in drills a foot apart and when the carrots are well up thin them out to three inches apart. Carrots are delicious if gathered when about the size of your little finger and steamed in butter until tender.

One ounce of seed is quite enough.

Cauliflower. There is certainly great satisfaction to the garden lover in seeing the

beautiful solid white cauliflower heads of her own raising, surrounded with their bluegreen leaves. The soil must be rich and the plants should be set out about May 20th, although for an early crop they might be set out the last of April. If the weather comes off dry the cauliflowers will suffer, as they require water. A good mulch will help them by keeping the soil moist. When the heads begin to form draw the leaves together and tie them near the top over the cauliflower. This forms a protection from the sun and keeps the cauliflower white.

Two packets of seed should raise a sufficient number of plants. The seed for an early crop should be sowed in March in boxes in the house or in hot-beds. Seed for a late crop to be set out the end of July may be sowed early in May in a small bed in the garden. The seedlings must be watered carefully and not allowed to suffer from drought.

Celery. Seed for celery can be sown in

the open ground in mid-April in a small bed where the soil has been finely pulverized and made rich; they should only be covered with a quarter of an inch of earth, which must be well pressed down; the bed must then be watered daily if there is no rain.

When the little plants are well up, thin them out to about three inches apart and keep them free from weeds. About the 15th of July they will be in condition to set out. Make a shallow trench six inches deep and spade some old manure into the earth in the bottom of the trench, cover this with a layer of garden soil and then set the little celery plants about eight inches apart, being careful to set them firmly. They should be transplanted about sunset and well watered; they will do better if partially shaded from the sun for a few days by boards or branches laid over the trenches. The trenches should be three feet apart for the dwarf and medium varieties and four to five feet if the large varieties are used.

As the plants grow the earth on either side of them should be carefully hoed against the plants, and packed around them with the hand. Care must be taken not to break the stalks and not to let the earth get into the center of the celery.

If it is desirable to save celery for Winter use, this can be done in two ways. Early in November dig a trench in the garden somewhat deeper than the height of the plants. In this, place the celery close together; then fill the trench, packing the earth closely, letting the sides of the bankedup celery slope away from the plants so that water will be carried off. Cover the top with a thick layer of litter, straw or leaves, laying boards over all. In this way the celery will blanch and keep perfectly. The other method of storing is to pack the celery in dry earth in barrels or boxes, which should be kept in a cool cellar that does not freeze.

One ounce of seed should raise at least two thousand plants.

Chicory makes so delicious a salad that it is well worth growing. Sow the seed the last of May in drills about eighteen inches apart. Thin out the plants to six inches and the first week in August draw up the leaves and bank up the plants in the same manner as the celery. In this way they will blanch and become crisp and tender. The Witloof is the best variety and one packet of seed will be enough.

Corn Salad is one of the earliest vegetables to mature in the Spring. Sow the seed the last of September, and the middle of November cover with straw or leaves; uncover very early in the Spring and by the middle of April the tender leaves can be gathered for salad. Two packets of seed will be sufficient.

Sweet Corn, when really sweet and tender, is one of the most delicious of the many vegetables that Americans are blessed with.

Who, on returning in early Autumn from a Summer abroad, does not welcome it upon the daily menu with delight!

I remember, when spending a Winter in Berlin, a very grand luncheon where canned corn, an excellent variety, was served as an entree, and how nice it was! The hostess had been in America the year before and learned to know our corn, and had brought over a case of it. It was really funny to see how the high born dames enjoyed it and to hear them exclaim "ausgezeichnet!"

The ground for corn should be rich and cultivated deeply. Hills can be made in rows three feet apart each way. Plant four or five kernels in each hill and hoe the earth against the growing plants once every week until they are well grown. It is best to have three plantings: the first about May 10th, the second the first week in June, and the last about the third week in June. White Cory for the first crop, Crosby for the second, and Evergreen for the third,

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Borders and vine covered pergola July fifteenth

are as satisfactory as any of the varieties.

One pint of seed for each planting will raise enough corn to supply a good sized family.

Cucumbers are tender plants which should not be sown in the open ground until May 20th; a second crop can be sown early in July. Make hills three to four feet apart each way and dig some old manure and a little wood ashes into the earth in the middle of each hill and plant four seeds in each.

One-half ounce of seed will plant twenty-five hills. Cucumber vines are apt to be infested with beetles, for which Bordeaux Mixture is the best antidote. In small gardens the easiest way to get rid of the creatures is by hand picking.

Egg Plants are very tender and the young plants must be started in the house or in hot-beds and should not be set out in the garden before the third week in May. They require a rich soil and will yield better if a small trowelful of nitrate of soda

with a little bone meal added to it be dug about the plants toward the end of June.

Two packets of seeds should raise enough plants. Egg Plants are somewhat difficult to raise from seed and the beginner might better buy them.

Lettuce for very early crops can be started in the hot-bed or in boxes in sunny windows of the tool-house, and sown in the garden about the middle of April. Or it can be sowed in the open ground as soon as it is in condition to work. Sow the seed very sparsely and when well up thin out the plants to from six to eight inches apart.

Lettuce requires a rich and finely pulverized soil. Sowings can be made every two or three weeks until the middle of June, but if the Summer proves hot and dry it is well to intermit the sowings until August, when the last crop can be put in. Of the many varieties there are none better than Boston Market and Tennis Ball.

One-half ounce of seed will raise more

than enough lettuce for a medium sized family.

Mushrooms. Any one can raise mushrooms who has a cellar under an out-building. For obvious reasons it would not be agreeable to raise them under a house. We have raised them successfully; a bed about six feet by twelve feet giving us from the first crop, from a pound to three pounds daily for nearly six weeks. The bed was then watered, a little fresh earth spread over it and well firmed down, and in three weeks a second crop appeared.

There are no better directions for making a mushroom bed than those given by Henderson and by Thorburn, and I have found their spawn excellent. One of the most important things is the condition of the manure. But if you want to have success, it is absolutely essential to follow the directions accurately. Few people are patient enough to do this, but will insist on making mushroom beds with various modifications of their own,

and, in consequence, raise no mushrooms. They even say, "It is all a matter of luck," or "Raising mushrooms is very difficult," although it is simply a matter of absolutely following the rules which experience has proved to be essential.

Okra. When all danger from frost is over, the okra can be sown, and if the Summer is warm there will generally be a fine crop. If the Summer is cold, okra frequently does not bear in the North. It should be gathered about a week after flowering. Be sure that the pods are crisp and snap easily, as when large they become woody and uneatable. When more okra ripens than can be readily used, it may be cut in thin slices and dried for Winter use.

A friend once sent me from Charleston a great basket of okra, so fresh that it seemed impossible for it to have been two days en route. With it she sent a receipt for gumbo soup that her colored cook had given her. I give the receipt and am sure

that once tried it will become a favorite dish. It will readily be seen that gumbo soup so prepared is almost a meal in itself.

The soup takes four hours to make. Put into a kettle two pounds of lean soup beef, one-half a chicken which has been jointed, a small ham bone, or a good sized slice of lean bacon, a slice of green pepper, and a square inch of onion. Add three quarts of water and boil or simmer gently, skimming often for two hours. At the end of this time add a quart and a half of okra which has first been cut in slices and fried lightly in the smallest quantity of butter possible, and add also a large potato cut in pieces, which gradually breaks and thickens the soup. An hour later, after frequent skimming, add a full quart of tomatoes and the corn cut from two large ears, and also the cobs, and continue to boil gently for yet another hour. Then remove the piece of beef, or whatever is left of it, and also the corn cobs, cut the meat from the chicken

bones, returning the chicken to the soup, add a teaspoonful of sugar, a teaspoonful of Worcestershire sauce, salt and cayenne pepper to flavor, and the soup is ready. Some rice boiled very dry should be served at the same time, that those who wish may add a spoonful of it to their soup. I have been told that the Creoles generally take the gumbo at the midday déjeuner, having first some fruit, then the soup, afterwards a salad, followed by cheese and coffee, which is certainly an ideal meal for a Summer's day.

Sow okra seed thinly in rows eighteen inches apart and two inches deep and thin the plants out to eight inches apart. I use the White Velvet variety and find that a quarter of a pound of seed gives an ample number of plants.

Onions. No garden should be without onions. Two ounces and a half of seed will raise quite enough; sow them in drills a foot apart about the middle of April;

cover the seed lightly but firmly with soil. The young plants should be thinned out to three inches apart. As they grow the onions will appear above ground, but do not cover them, as this is their habit of growth.

Onions require a rich, heavy soil; indeed, the large crops of them for market are raised on low meadows where the soil is black muck. In the garden, of course, you can only give the ground plenty of fertilizer and abundant cultivation, and the result is generally all the onions you wish to use. The success of the onion crop depends upon its being kept free from weeds. When ripe pull them up and let them dry in the sun for a couple of days, then store away in boxes in the cellar. White onions of medium size are the most desirable.

Onions may also be grown from small bulbs called sets. These should be planted about three inches apart and a couple of inches deep, in rows a foot apart. If planted as soon as the ground can be worked in the

Spring they will be ready for the table in about four weeks, but it is advisable to raise only the early crop from sets and the main crop from seeds.

Parsley should be sown in drills very early in the Spring, and will be large enough to use in six weeks from the time of sowing in the open ground. It is well to soak the seeds over night before sowing, as they are slow to germinate. Thin out the young plants to three inches apart. Parsley is a perennial and if covered in late November with some litter will generally survive the Winter. One ounce of seed is quite enough.

Parsnips. Sow parsnip seed also very early in the Spring in rows eighteen inches apart and thin out the plants to six inches apart. Late in the Fall the parsnips can be packed in dry earth in barrels or boxes and stored for Winter use. Or they can be buried deeply in the garden and dug up as wanted.

Peas. Every one likes peas and every

A bed of Anemone Japonica Whirlwind September nineteenth

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one wants their season extended as late as possible. My orders to the gardener are to plant a new crop as soon as the first is two inches above the ground and to continue doing this until the middle of June. The first two and the last crops are always the largest planted; and, as the late ones art apt to suffer from dry weather, a last crop can be planted about August 1st. If the weather at this time is dry it will be well to soak the seeds for twenty-four hours before sowing and when they are up, to mulch them two or three inches. The first crop should be planted as early in the Spring as the ground can be worked.

For years I grew only the tall varieties, but they required so much labor and occupied so much room that in recent years we have grown only the dwarf peas. Old-fashioned gardeners and men who have been trained under them will still pin their faith to the tall-growing peas, and I know some people who think that the Champion of

England is the only kind to raise. However, the Little Gem and American Wonder, both dwarf, are sweet and juicy and produce large crops, so I plant them every year with most satisfactory results.

Four quarts of pea seed will raise an ample quantity for a medium sized family.

There is such a difference between the French and American ways of cooking peas that if they have been once eaten as the French cook them, the American boiled peas will never again be seen on the table.

One Summer we spent several weeks at a delightful inn on the Normandy coast, kept by the nicest Frenchman and his wife, who could not do enough to please us. When they noticed that I did not care for "haricot vert" (and who ever returns from a Summer on the Continent without registering a vow never to look another string bean in the face?) there were generally some peas prepared for me; upon request the Frenchman told me how to cook them, and

I give the receipt, as it does not seem to be generally known.

Place enough peas for eight persons in a double boiler, add two tablespoonfuls of butter, six leaves of lettuce, and three tiny onions as big as the top of one's finger. Keep the water boiling under them for three hours, when they are ready to serve. The butter and lettuce add to the juice, and the baby onion gives such a soupçon of flavor that one scarcely knows it to be onion.

Peppers. The seed for peppers may be sown in the hot-bed, but I have it sown directly in the garden about May 10th; two packets of seed will raise quite enough plants. The soil should be rich and finely pulverized. Sow the seeds thinly and when the young plants are well up thin them out to eighteen inches apart. Peppers are apt to be killed by the first frost, so it is well when frost is expected to have all that remain on the plants gathered at once. If

stored in a cool, dark place, they will keep a long time.

Radishes are most acceptable in early Spring, and if they are to be raised in the garden, should be sown as soon as the frost leaves the ground; the rows should be about a foot apart and the plants about two inches apart in the rows. The small dark red variety is the best. One ounce of seed is sufficient, and sowings can follow each other about every three weeks.

Rhubarb. Every garden should have at least a few plants of rhubarb. A dozen roots can be bought for about a dollar and a half, and will last a lifetime. They should be planted in a corner where they will be undisturbed, and require little or no culture beyond keeping them free from weeds. Cut off the leaves in late Autumn and throw some litter over the plants, and fork some manure into the ground in early Spring.

When the rhubarb starts in the Spring, if barrels without heads are placed over the

plants to exclude the light, they will grow up tall and white and be crisp and tender, quite another thing from the stalks of the uncovered plant. It is generally enough to cover four plants to begin with, and then as soon as one plant has been cut, to move the barrel to another plant, and so on.

Salsify. Sow salsify or vegetable oyster as early as the ground can be worked and treat it in every way like the parsnip.

Spinach. Seed for early Spring spinach should be sowed in October, well covered with leaves or coarse litter at the end of November and uncovered at the end of March. By the 20th of April it should be ready to gather. Spinach treated in this manner has always survived the Winter, except the last terrible one. If it is not thought desirable to run the risk of Autumn sowing, then sow the seed the moment the frost is out of the ground in the Spring, and the crop will be ready by the middle of May. Spinach for a Fall crop should

not to be sniffed at. Boil enough for eight persons until quite soft; drain and rub them through a wire sieve; return to the saucepan, add a tablespoonful of butter, three of cream or of rich stock, pepper and salt to taste; cook for five minutes, stir continually so the mixture does not burn, and it is ready to serve.

Herbs. In every vegetable garden there should be a corner devoted to herbs, and a couple of packets of the seeds of each variety will raise enough plants. Being perennials, they need only to be kept free from weeds, to be covered with litter late in the Fall, and in earliest Spring to have some manure forked into the ground around them.

Sow the seeds thinly in good rich earth, and thin out the plants to about eight inches apart. Lavender, thyme, savory, and sage are the herbs of most ordinary use. Chives (or cives), though belonging to the onion family, may be grown with the herbs; they

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Arbor Vitae Pyramidalis
August tenth

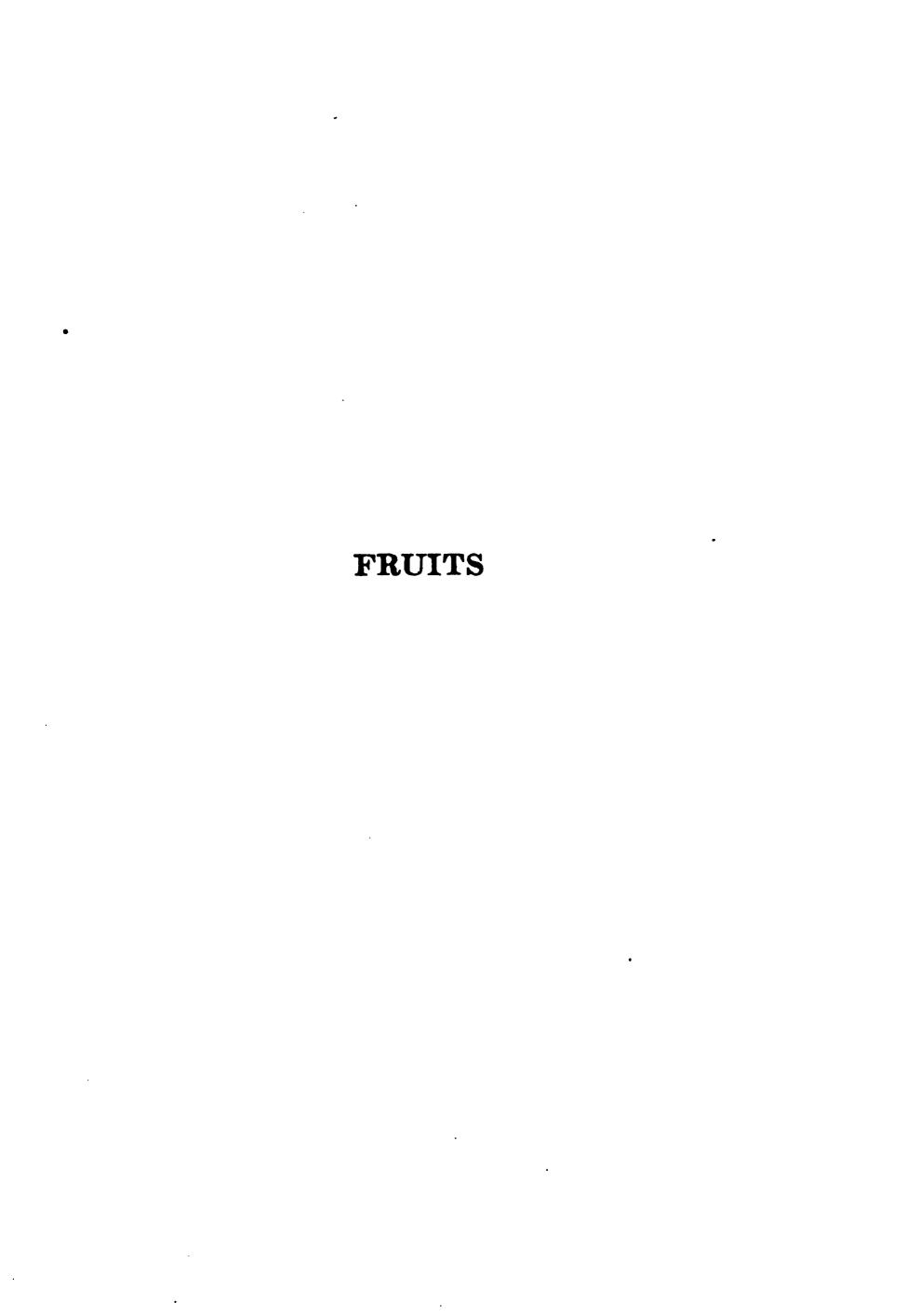
are perennials, and the leaves only are used for flavoring after being finely chopped.

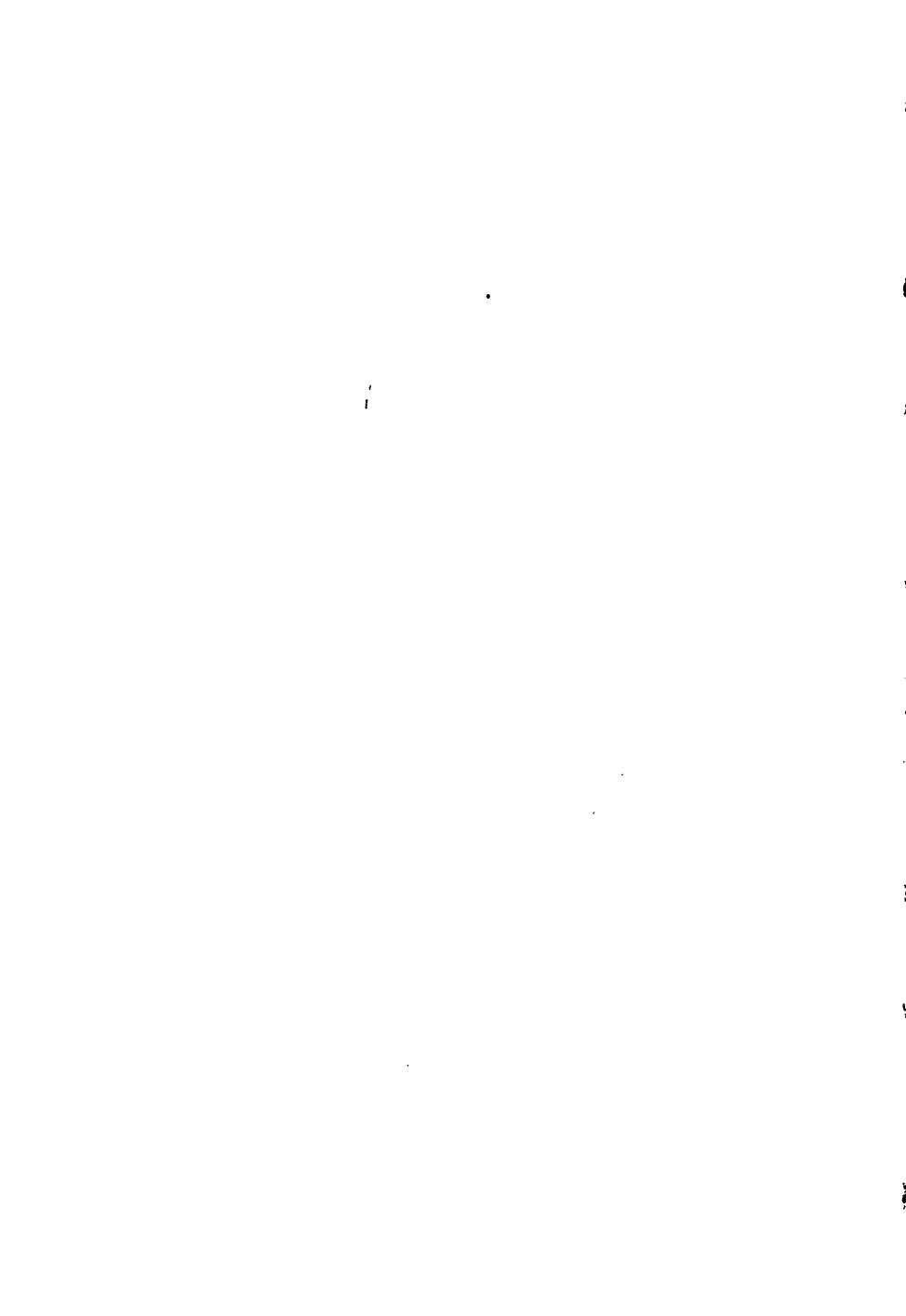
Who does not love the faint odor of lavender on the cool bed linen, and have not many of us some childhood recollection of sage? My nurse, I now believe, thought it a perfect panacea. If we tumbled in the brook or ate green apples, a cup of hot sage tea was administered. She kept a bottle of strong, black sage tea in which was a large rusty nail, and would rub my hair twice a week with this concoction, saying that when I was a lady "'twould be the grand hair you will have." There was strenuous objection twice a week, but she always won in the end.

All the seeds (excepting potatoes) required for a vegetable garden large enough to supply a family of eight to ten persons, can be bought for about \$10 to \$12. Rhubarb and asparagus plants, if bought, will add to the expense, likewise to buy the tomato, celery, cauliflower, and egg plants

will cost somewhat more. But what family of eight or ten persons would not spend in six months a far larger sum in buying vegetables than the combined cost of seeds, fertilizers, and the occasional man by the day required for the garden?

I have endeavored to make this chapter on vegetables as brief and as simple as possible, to show those who have room only for a small garden, which they will probably care for mostly themselves, how easy of culture as well as remunerative the vegetable garden really is. This chapter is not meant for people with large gardens who employ several gardeners, but for those with small places who want to make a beginning, or who, employing perhaps one useful man to do most of the work, find pleasure in personally tending their own gardens to at least some extent.





CHAPTER III

FRUITS

THEN the fruit trees blossom in late April and early May, the whole country where we live becomes, from the many orchards on all sides, one great garden. The exquisite pink-tinged apple blossoms, the pale pink blooms of the peach, the masses of delicate color set in the tender green of budding leaves and fresh grass, all breathing the fragrance of the Spring, make the scene one of beauty indescribable. We can understand and sympathize with the Japanese in their love of the cherry, peach, and plum blossoms, and envy them the life that makes it possible to lay work aside for a time every day and flock to the gardens, where the cult of the fruit tree and the Wistaria, of Pæonies, Lilies, and Chrys-

anthemums have been brought to perfection, and where they may steep their senses in this beauty daily, from the time the early cherry blossoms come until the petals of the last Chrysanthemum have been borne away by the winds. But how few dwellers in our cities give thought to the wonderful beauty to be seen, just a little way out in the country, when the blossoms come in Spring! And even were time available, how few among the multitude would leave the asphalt for a day merely to gaze upon the fairy-like scene! To them, living is such a tread-mill of obligation and toil and work, that many go through life with unseeing eyes for the great beauties of Nature. From the days when the stern Pilgrims, hoe in hand and musket slung over the shoulder, wrested a scanty living from the wilderness, until to-day, when millionaires travel between their country places and Wall Street by automobile, swift yacht, or special train, reading the last edition of the newspaper en

FRUITS

route, we have been so occupied in the pursuit of the practical, that as a people we have neglected the cultivation of the sense and love of beauty. That the whole population of a city should flock to gardens of cherry blooms, or have feasts at Wistaria time, is something we might possibly dream of, yet cannot comprehend. But success and consequent ease of life, with an everincreasing class of nature lovers, and of those who appreciate the beauty of simplicity, are gradually leavening the multitude; and possibly within a few generations, our people may have the same love for beauty in form and color, in sunlight and shadow, in the bird on the wing, in the dwarf tree as well as the great pine, in the bud and seed pod, as well as in the perfect bloom, which now the Japanese possess in such perfection.

Fruit trees are lovely not only when masses of bloom. Can anything be more beautiful than a fine apple tree laden with fruit, or a cherry tree when every twig is

bending with the weight of glossy, red cherries, or a peach tree covered with peaches that make one's mouth water to look upon? Is there anything more ornamental than a crab apple tree with its brilliantly colored fruit; or a vine heavy with clusters of purple and red grapes; or currant bushes with their scarlet, gem-like berries?

The demand for good fruit has never been met with a sufficient supply, and there is always a ready market for any fine fruit raised beyond the requirements of home consumption.

I have always believed that a woman, thrown upon her own resources, could make a good living from a few acres of land, by the culture of asparagus, for which there is always a demand exceeding the supply, and of small fruits. If she had also a cellar where mushrooms could be raised, and would cultivate them, first in a small way, until she had gained the necessary knowl-

An entrance to the Lily garden September eighteenth

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edge and experience for their extensive culture, she would make a gratifying addition to her income.

In this chapter, I would speak of fruits only for the small home garden, their larger cultivation in orchards being a subject by itself.

Fruits should never be grown on low, wet ground where water stands in Spring or Fall; in fact, they would quickly die in such a situation. The same soil and location that make a successful garden will also grow fruits successfully. Fruit trees will do better the first year on land that has been cultivated the previous season, but when they are to be planted in sod, the ground should first be plowed deeply, all stones removed and then well fertilized.

The tall or standard orchard tree is always the best to plant. The dwarf trees are all well enough where space is limited, but one fine tree of the standard varieties is better than six of the dwarf.

Nearly all fruit trees may be planted in the Fall, but it is better to set them out in the Spring as soon as the ground can be worked. Three-year-old trees are the best to plant, and the same care must be taken in planting fruit trees as with all other trees; the hole must be larger than the roots, all broken and injured roots should be cut off and the earth well packed down and made firm around them. After planting, all trees, bushes and grape-vines should be given a mulch about three or four inches deep of leaves, litter or old manure extending out for a foot beyond the space occupied by the roots. This keeps them moist and assists the tree in making new growth.

Apples. In gardens, apple trees may be planted from twenty-five to thirty feet apart; in orchards they are usually set forty or more feet apart. The young trees must be well pruned when planted and from

one-quarter to one-half of the length of each branch cut off. Pruning is a matter of great importance to fruit growers, as all fruit trees must be pruned yearly, and the novice will find some good book on the subject, of which there are several, to be of great help.

The ground under apple trees should be kept free from weeds and grass, and the soil loose, until the tree is five or six years old. A mulch of litter or leaves over this space during the Winter, will be of benefit, and a good coating of manure with two or three pounds of muriate of potash, stirred into the ground around each tree in the Spring, will stimulate its growth. An apple tree generally begins to bear when five years old, and should have a full crop at ten years. It is a long-lived tree, and whoever plants one may reasonably expect it to live and bear fruit not only during his own lifetime, but that of his children, and possibly his grandchildren.

The care of a few apple trees is not great, but they must be attended to regularly and carefully, if fine fruit or good crops are to be expected. If the codlin moth or the apple worm, which eat the foliage, should attack a tree, they can be destroyed by spraying with Paris green when the blossoms have fallen. To prevent fungus and the various microbe diseases, the trees should be sprayed with Bordeaux mixture, first in March, again when the blossoms have fallen, and sometimes still again when the fruit has formed, and the little apples turn down on the stem. Every year, in March, all fruit trees must be "grubbed," as the farmer calls it, which consists in digging about the base of the tree from one to three inches underground, and taking out the worm and its larvae, which will be discovered by the burrows the creatures have made into the wood. They are removed by running a piece of wire into the small holes made by the borers or cutting them out with a sharp knife.

A friend told me recently, that this year he had gathered from one Baldwin apple tree that had never received any care bebeyond ordinary pruning and spraying, thirteen barrels of fine apples, which were sold to the wholesale dealer for \$1.50 per barrel.

Each one may have his preference in the matter of varieties, but six satisfactory apples are: Baldwin, Northern Spy, Rhode Island Greening, King, Seek-no-Further, and the Sutton Beauty or the Russet.

Cherries. The sweet cherry is another long-lived fruit tree. It has a fine form, retains its foliage until late in the Autumn, like the apple tree, and is beautiful alike when in blossom, in bearing time and throughout the year. The two types of cherries are the sweet and the sour. The sweet cherry becomes in time a large tree, while the sour remains small and low-growing.

Cherry trees will thrive and do well on clayey soil when mixed with a little loam,

and will succeed better in dry seasons than other fruit trees. Like the apple, they should be three years old when planted and be set twenty-five feet apart. The trees should be sprayed with Bordeaux mixture when the blossoms have fallen, and again when the fruit is well formed. If aphids appear on the new shoots, they can be destroyed by spraying with tobacco water, which is made by steeping tobacco stems in a pail of water until it has become dark brown in color; if the curculio, the enemy also of the plum tree, appears, a sheet should be spread upon the ground under the tree, which should then be well jarred. This will bring down not only the affected fruit, but also the curculios; the insects and the bad fruit should be burned. This operation will take but a few minutes, and after the blossoms fall, should be repeated every day for a couple of weeks. It must be remembered that all fruit which is to be kept for a few days, or sent to any distance,

should be gathered when perfectly dry, otherwise rot may set in.

Six satisfactory varieties of cherry are: Black Tartarian and Black Eagle, both late Cherries; Governor Wood and Downer's Late, red; and Napoleon and Yellow Spanish, pale yellow, or "White Cherries," as they are usually called.

I well remember a tree in my father's garden called the "White Ox-Heart Cherry tree." It was easy to climb and had a comfortable crotch well up among the branches where one could sit at ease, and many a happy hour have I spent in that tree with the crown of my hat filled with fruit to eat, and "Little Women" or "The Wide, Wide World" to read.

Crab apples are used mainly for making jellies and preserves, but the tree is beautiful either in blossom or when covered with fruit, and it is worth while to have one tree in your garden if there is room. It should be three years old when set out, and culti-

vated in the same manner as the cherry. Three excellent varieties are Dartmouth, Large Red Siberian, and Hall's Imperial.

Pears. The garden should contain at least six pear trees. If well cared for, they will bear fruit during a long lifetime. The early kinds ripen in August and the late varieties will keep well into the winter, so that pears can be had from your own garden for quite half the year.

Not long ago a lady showed me in her garden a pear tree thirteen years old, of the Kieffer variety, that had never received any particular care or attention beyond pruning; yet it had always borne abundantly, and this year yielded ten bushels of fine fruit.

Pear trees will thrive on clayey soil and require but little fertilizer. Stable manures, nitrates and bone meal, all of which are valuable for other fruits, tend to produce pear blight, which declares itself by the blackened condition of the leaves. The only cure for this pear blight is in the removal

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of the affected branch at once when the trouble appears. Branches should always be sawed from a tree, never chopped, and the surface where the limb has been sawed off should be given, immediately, a coat of thick paint. A little wood ashes and some superphosphate of lime may be dug into the ground around pear trees in the Spring, and will give sufficient stimulus. Whenever wood ashes are used, do not let them come in contact with the trunk of the tree, lest they burn the wood.

There are two varieties of pears, standard and dwarf. The former should be planted twenty feet apart; the dwarf varieties ten feet. Dwarf pears are generally grafted on quince roots, and, like all grafted stock, should be planted deeply, the graft being set quite four inches below the top of the ground. The trees should be examined carefully in the Spring for borers, and the soil over the roots kept loose and free from weeds and grass.

The following are excellent varieties of Pears: Wilder Early and Manning's Elizabeth, which ripen in August; Bartlett and Flemish Beauty, in September; Duchesse d'Angoulême, Louise Bonne of Jersey, and Seckel, in October; Anjou, Easter Beurre, and Josephine of Malines, very late varieties. The last three should be gathered in October, and will keep in a cool, dry place until January or February.

Peaches to do well in orchards should be on high ground; they seem to prefer a hill-side. When grown in a protected situation, the buds swell early in the spring and are often destroyed by late frosts. Peach trees will not be hurt by a low temperature in Winter unless the weather is also damp or foggy, but late Spring frosts are certain to do them great damage. In a garden they should, if possible, be planted where they will be sheltered from the west and south by buildings, evergreens or hedges, that they may not start too early in the Spring.

The peach is not a long-lived tree and has several serious enemies. The first of these is San José scale, which, being contagious, should be preventable, if the owner upon discovering it would promptly take up the tree or plant and burn it, root and branch, and then at once spray the remaining trees with the lime, salt and sulphur spray recommended by the United States Agricultural Department and generally used by fruit growers. This disease should be treated in the same manner as the Board of Health proceeds in cases of contagion, the spraying corresponding to the fumigation of a dwelling. Yellows is another contagious disease, which is recognized by the ripening of the fruit long before its due time, by the red spots on the peaches extending from the skin well into the fruit, and also by the tufts of yellowish leaves which form upon the branches. Trees so affected should be burned at once. Curculio also attacks the peach, and can be destroyed by jarring the

tree and burning the insects and infected fruit in the same manner as described for the treatment of cherry trees. The borers, or grubs, must also be dug or cut out from the trunk of the tree just below the ground every Spring and Fall.

Peach trees are usually sent out from the nurseries when one year old, and should be cut back when planted so that they look like little switches. But their growth is rapid and in four years they will bear a crop.

In a garden, the trees may be set from twelve to sixteen feet apart. Generally after eight or ten years, and sometimes sooner, the old trees are uprooted and new ones planted in other ground. There are instances of older orchards or of older single trees in gardens, but these are rare. A late Spring frost, dry weather after the fruit has formed and many other causes may prevent the trees from bearing, and they rarely bear on succeeding years. Of all the fruits in the garden, you must count least upon the

peaches, they are so shy and uncertain. But when they do bear, the fruit is delicious and you are well rewarded for all the pruning and cultivation and care.

Every year in March, the trees must be pruned and sprayed with the Bordeaux, and again sprayed after the blossoms have fallen, and a third time after the young fruit has formed if there are any signs of fungus diseases.

Wood ashes and muriate of potash are considered by many to be the best fertilizers for peach trees. Barnyard manure and bone meal are also excellent. The fertilizers should be dug into the ground around the trees early in the Spring. If muriate of potash is used, from two to three pounds for a full-grown tree is the usual quantity. The advantage of potash over other fertilizers is in the color it imparts to the fruit. The same quantity of bone meal or wood ashes could be used, if preferred. Half the quantity of fertilizer used for grown trees

other fruit trees, and some nitrate of soda and bone meal dug about them in the Spring. The best varieties are Rea's Mammoth, and Apple.

The few fruit trees grown in a garden are more likely to be free from disease than where they are grown by thousands in great orchards. Careful cultivation, with prevention by spraying and cutting, and a sharp lookout for borers and insects, will reward the gardener with beautiful trees and excellent crops of fruit to delight family and friends. A man can easily spray all the trees in a home garden in a forenoon, and the other necessary work in caring for them takes but a short time. I have often thought that if we had room for but six trees, one of them would be an apple tree, one a red cherry, and the others would be a locust, a catalpa, a white pine, and a hemlock spruce. The four deciduous trees would give us blossoms in May and June, with

Tall pointed cedars in the Lily garden July twenty-third

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cool shade throughout the Summer; then there would be cherries in June and apples in October, and always, but particularly in Winter, the two sturdy evergreens would be a daily joy.

Grapes. A few grape vines, particularly if grown over a modest pergola, or an arbor where their shade would make a pleasant place of refuge through the Summer days, give delight by the beauty of their foliage and fruit. Hardy grape vines, if they are kept in good condition, seem to bear indefinitely. I know some vines which are still bearing profusely, well into the lifetime of a third generation.

Grapes thrive in a light clayey soil which has been well enriched. The vines should be two years old when planted, and the roots must be carefully spread out and every precaution taken in setting them, which should be done as soon as the ground can be worked in the Spring. The vines must be

Downing, Houghton, and Industry are probably the three best varieties.

The blackberries, raspberries, and strawberries we raise, while not adding to the beauty of the garden, are fruits so delicious and so universally liked that, whenever it is possible, a place should be found for them in the home garden.

One of the bulletins issued by the United States Agricultural Department gives a plan for a small fruit garden, occupying a plot about 60 by 80 feet, on which the following could be grown: Six peach trees; six cherries; six dwarf apple trees; six plums; twenty blackberries; forty black caps; forty red raspberries; three hundred strawberries; thirty-two grape vines, planted at intervals of ten feet all around the plot, and eighteen dwarf pear trees. Such a small piece of ground so planted, if properly cared for and cultivated, would yield a large quantity of fruit.

Blackberries require a rich, moist, but

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well-drained soil. They may be set out in the Fall, and should be planted about four feet apart in rows that are five feet apart. In the Spring, a good top dressing of stable manure should be dug around the bushes, which should be kept free from weeds, and in dry weather, until they cease bearing, the ground around them should be kept loose by frequent stirring with a rake or hoe. The plants must be trimmed when they cease bearing, and as a cane bears only one crop, the old ones must be cut out; not more than six canes should be allowed to a plant, and if others form they should be cut down. The canes should not be allowed to grow higher than four feet, unless they are to be kept well staked. Where the Winters are very severe, blackberries are either bent down and covered with earth or tied to stakes and wrapped in straw.

Among the best varieties of blackberries are Agawam and Erie, early, and Lawton and Kittatinny, late.

Raspberries, both the red and white, and the black, commonly called Black Caps, are grown in the same manner as blackberries; the canes should be cut out, leaving but six canes to a plant, and they should also be similarly protected in Winter. A berry plantation with careful cultivation usually bears good crops for five years; it is then advisable to set out new plants on other ground. Newly plowed ground should not be used for berries, but a place chosen where corn, potatoes or beans were grown the previous year. Raspberries may be propagated by root cuttings, or suckers from the roots.

Fine varieties of raspberries are: Clark, Fastolf, Kenesett, and Marlboro, red; Golden Queen and Orange, yellow; Eureka, Gault, and Gregg, black caps.

Strawberries. A fine strawberry bed is much to be desired. But strawberries, perhaps because they are such an addition to the fruit garden, are more difficult of culti-

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The Lily garden in Auratum time July tenth

vation, must be more frequently renewed, and, like many rare and beautiful things, require more labor to produce than the other small fruits. The strawberry bed should be as nearly level as possible, should be well enriched with stable manure, and have some bone meal and nitrate of soda, spaded deeply into the ground, which must be finely pulverized.

Late in August or early in September is the best time to set out the plants. A neighbor possessing a large strawberry bed is often willing to give away runners (the young plants formed on the shoots from the parent); if they are to be bought, pot-grown plants are the best. Plants that have a small crown but a good root development, are preferable; the hole for the roots should be amply large and the plants set deeply, so that only the leaves are above ground. I have always found "hill culture" of strawberries to be the most satisfactory. In this method, the plants are set twelve

Each plant is then kept free from weeds, no runners are allowed to form, and larger crops are produced in consequence. The young plants should be mulched with old manure when set out, and if the weather is dry they should be watered twice a week, as drought would be apt to kill many of them.

Late in November the strawberry bed should be covered to the depth of four or five inches with coarse hay, leaves or straw. This should be removed in the Spring as soon as the frost is out, the ground then well tilled and the same material used again as a mulch, close around the plants and over the ground between the rows, or else, if preferred, other hay or straw or clippings of lawn grass used instead. This Summer mulching is important, not only for keeping the berries clean and free from earth, but to prevent the ground from becoming hard and dry.

A strawberry bed will yield two good

crops. After it has ceased bearing the second year, allow the runners to grow and prepare a new bed; by the end of August the runners will have become nice little plants, which can be removed and planted in the new bed. The old plants should then be thrown out, the ground where they were, well spaded and left to lie until Spring, when it can be fertilized and used for vegetables. So long as the fruit continues to be satisfactory this process can be continued, but should the quality of the fruit deteriorate, a new stock of plants should be procured from a nurseryman.

There are more differences of opinion as to the variety of strawberries preferred, than in the case of any of the other fruits. Many prefer the enormous berries to smaller ones of finer flavor. The very large berries are of firmer substance than many of the smaller varieties, but seem to lose in flavor. Nor can the cultivated varieties compare in flavor with the little wild berries that one is

able to get sometimes in more distant parts of this country, brought in by the farmers' children, and also in the Alps, or Dolomites, where they ripen toward the end of July.

There are two kinds of strawberry plants,—the perfect flowering varieties and the pistillate or imperfect flowering. The pistillate varieties must be planted with or near the perfect flowering, so that the bees and winds may carry the pollen from the perfect to the imperfect flowers. It may be best to plant only strawberries of perfect flowering varieties to insure a crop, for should heavy rains come when the strawberries are in blossom the pollen may be washed away. A row of perfect flowering strawberries should be planted to every two rows of the pistillate or imperfect flowering varieties.

Strawberries are seldom attacked by disease, but occasionally rust or mildew appears. These troubles can be held in check by spraying the young plants with Bordeaux

mixture when they are first set out, and again when they have finished blossoming.

Good varieties of strawberries are: Haverland and Bubach, pistillate varieties; Michel's Early and Bederwood, early perfect flowering; Lovett, McKinley, and Brandywine, late perfect flowering.

Melons A melon patch requires considerable room, as the hills for the vines should be at least six feet apart each way, and there should be twenty hills each of water melons and musk melons. The soil should be light and sandy or the melons will not succeed. The ground to receive them must be well cultivated, and the place chosen for the melon patch should be as far removed as possible from cucumbers and squash. It is better also to separate somewhat widely the musk melons from the water melons. The culture of both is alike. Hills should be made six feet apart and ten seeds should be planted in a hill, after all

danger from frost has ceased. Some leafmould, old manure and a little bone meal, dug into the hills, will be a stimulus to the melon vines, which should be grown in full sun and given every aid to mature rapidly.

Insects are apt to attack the young vines, which should be looked over every morning and the insects destroyed. The vines may also be sprayed with Bordeaux mixture or tobacco water. When the vines are a foot in length, all but four plants should be taken out from each hill. Some vines are generally destroyed by insects, this being the reason for planting an extra quantity to provide for loss.

Netted Gem, Hackensack, Rocky Ford, and Newport are good varieties of musk melon, and Hungarian Honey, White Seeded Ice Cream, and Mountain Sweet are desirable water melons.

The greatest difficulty in raising fruit in the home garden, as we have found it, has

been the marauding proclivities of the neighbors' boys. The appetite of the small boy, and sometimes, alas! of the small girl, for apples, pears, and cherries, enables them to overcome all barriers, however high, and circumvent all diligence, however watchful, to procure the coveted fruit, and no pangs are too severe to endure for its sake, often taken when far from ripe, as the child's mother later learns from a wakeful night.

The idea of "mine" seems to be well and clearly developed, but the definition of "thine" is hazy and incomplete. It is strange how badly brought up "other people's children" often appear, while it seems that one's own are generally little white angels! To the birds we willingly give their portion of the fruit, and when the small boy generously allows us a share, even a little fruit garden will amply repay the owner for the time and money spent upon it.



A LITTLE ABOUT TREES

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CHAPTER IV

A LITTLE ABOUT TREES

TT is with hesitation that I have ventured Leto approach so large a subject in a limited space. A landscape gardener to whom I confided the fact that this little book would contain a short chapter upon trees that might be useful to the amateur, turned a withering glance upon me with the remark that "when Mr. Blank's large two-volume work upon trees is comparatively elementary, what can you possibly say in one chapter that will be useful?" Of course I was deeply humiliated and could make no fitting reply. But the idea remained with me. I knew my own aversion to searching through comprehensive works of many volumes when I needed only a little practical information, and have, therefore, taken courage again to write briefly

about some trees of vigorous growth, hoping that the amateur may find it helpful.

The native trees of the locality where you live are sure to flourish. The climate and soil suit them. They will bear transplanting well, and, if carefully attended to, are quite sure to live. Drive around the country, notice the trees growing by the roadside or about the older places and farm-houses; see what trees are in the woodlands, and after deciding what you want, order them from some good nursery, or, what is more interesting, get them from the fields and woods.

Deciduous trees must be transplanted either in the very early Spring as soon as the ground can be dug, or in late October, after the leaves have fallen. If you own no fields or woodlands where young trees are growing, then go about the country until you find what you want; if you think they can be obtained, make friends with the farmer (it will probably be a farmer) who owns the trees; he will undoubtedly be glad

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to sell them to you at a reasonable price, and also, as farm work is not pressing in late October or at the end of March, to dig up and deliver the trees to you for the price of a day's work. But don't trust him to do it without oversight, unless you know that the man has had experience and been successful in getting out trees, and, above all, have it understood and *insist* that the roots must be whole, if there is a tap root, that it shall all be there, that the tops shall be uninjured, and, in fact, that the whole tree be in good condition.

If a few trees only are to be transplanted, you will be interested to go yourself and watch them dug out, to be sure that every precaution is taken. Have some old stable blankets or large pieces of burlap ready to cover the roots of each tree as soon as lifted, so that they do not become dry, and do not allow more trees to be taken up than can be moved to their new home and planted the same day.

More care must be taken in transplanting trees from the woods and fields than with nursery stock. In nurseries the trees are frequently moved, their form carefully preserved, the roots pruned, and packing for transportation reduced to a science. But a tree that you have seen growing in a fence corner or in a woodland, whose transplanting you have personally superintended, will be more an object of fond pride and dearer to you, than the nursery-grown tree that comes in a box by express.

If possible, always have your nursery stock sent by express. This is important. Freight is slow, and plants and trees often become so dried out by the long transit that they cannot survive. Last Fall I lost a number of plants sent from a Western State because the orders to send by express were misunderstood and the box reached me as freight after being three weeks on the way. The actual loss was made good, but there was the annoyance and delay.

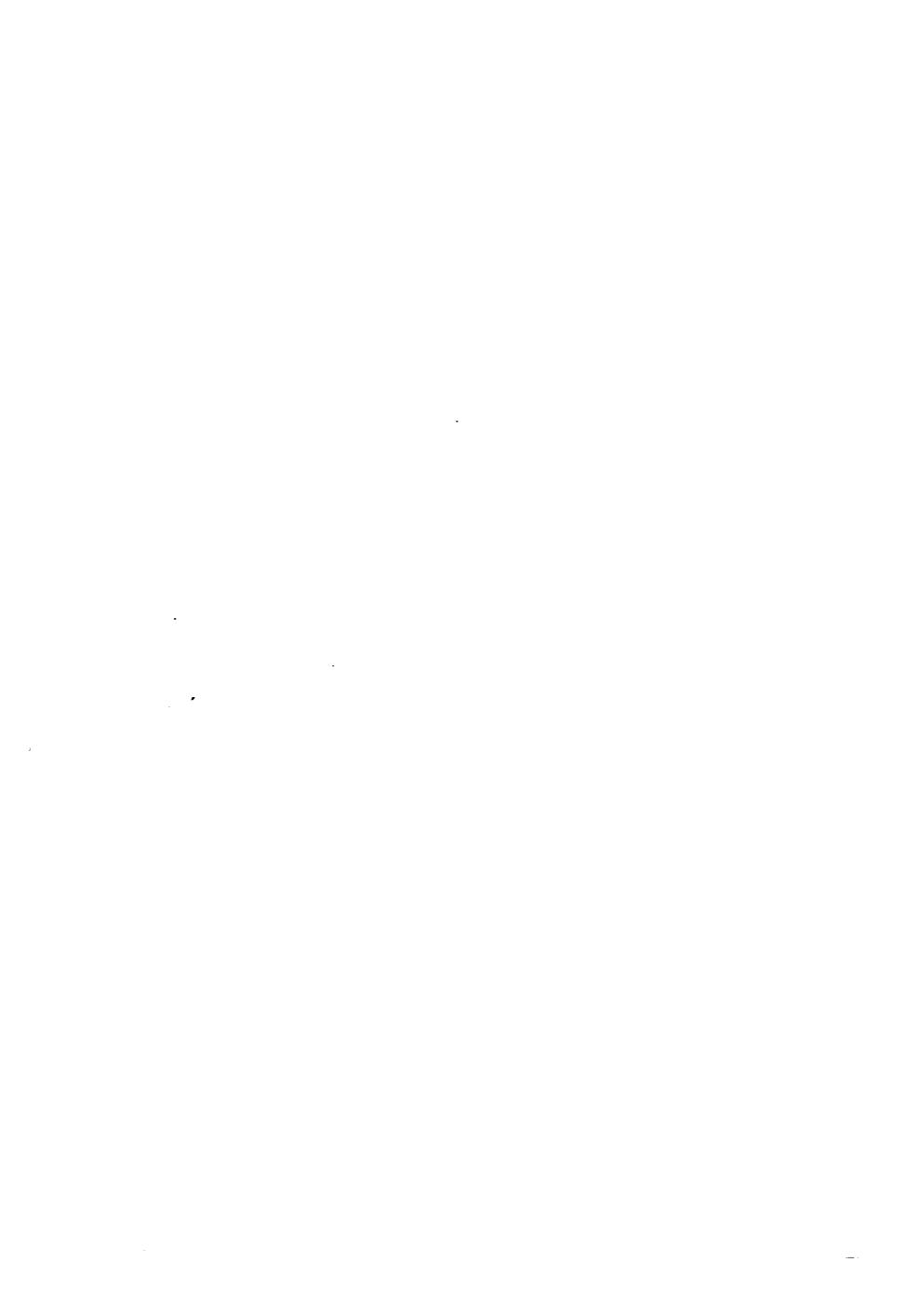
There are many native shrubs to be found growing in the fields and by streams, that are worthy of a place in any garden. They are easy to transplant and quite sure to live. They must be well pruned, however, and quite half of the tops should be cut off.

Among the shrubs to be found in the fields are the sweet-briars, alders, black chokeberry, elders, witch hazel, and the splendid sumac. In many localities the Rhododendron maximum, laurel, and the pink azalea, none of which should ever be trimmed, can be dug from the woods with but little trouble.

Many vines are also to be found growing against old fences or twining about trees. These may be carefully dug up, the tops somewhat cut down and brought home in triumph, to plant by the veranda posts, to cover a rustic summer house, or to twine about a trellis. Four of the best of these wild vines are Virginia creeper, bitter sweet, wild clematis, and the wild grape.

I care infinitely more for the trees, deciduous and evergreen, the rhododendrons and other things that I have had transplanted from the woods and fields, and succeeded in making happy in their new home, than for anything that we have bought from nurserymen.

When you have once acquired the taste for transplanting from the country side, there is no overcoming the desire. You become more observant, and when walking or driving, you look upon the trees, shrubs, vines and flowering plants along the road or in the fields with an eye to bringing them home some day. I know now of a straight, healthy tulip tree, about twelve feet high, growing on a tangled roadside some miles away, which I have often thought about during this Summer and Fall. Some day I shall make friends with the farmer, who probably does not care about or even know of its existence, and hope to persuade him to let me have the tree.



I have always preferred to plant deciduous trees in the Spring, and have had extraordinary success. The hole to receive the trees must be deeper and larger than the roots, and in the bottom should be placed a quantity of well-rotted manure, which must be covered with about four inches of good earth free from lumps and stones. Then set the tree, which one man should hold upright, while another, after spreading out the roots carefully, shovels in the earth, which should be top soil, well pulverized. When the hole is about half filled in, turn on the water and thoroughly wet the ground below and all about the roots. The rest of the earth can then be filled in and pounded down, and the ground around the tree covered with a mulch of coarse manure. If the weather is dry, the tree must be well watered twice a week and the earth soaked to the roots; the tree will then be quite sure to live.

When visiting recently in a beautiful country town not far from New York, where

every place both large and small was neatly kept and generally well planted, I came one day, when walking, upon a man engaged in setting out a row of trees along the road in front of a house. They were pin oaks, unusually fine young trees, and the row of them was probably a hundred and fifty feet long. The ignorant creature had dug holes barely deep enough to cover the roots in the clay soil, which was like hard pan. This he did not pulverize or loosen, but merely hollowed out a sort of basin, the bottom and sides of which were perfectly smooth and hard. Into these hollows the roots of the trees were placed, and the earth, full of pieces of sand-stone, was then shovelled back upon them. For three successive days I returned to see these trees and their planting, which the man finished in this time, and observed that no good earth, no fertilizer, no mulch was used, and that during that time none of the trees were watered. How can even a brave and hardy



Cut leaved Maple, eight years after planting as a tiny tree September seventeenth

oak tree survive such treatment, and how can the tender rootlets find their way into so hard and uncongenial a soil? I shall make an expedition to this same town next Spring for the special purpose of seeing the condition of those trees.

A tree ten years after planting should have attained a good size, give a fair amount of shade and be a beautiful object. But cultivate modest expectations as to the growth of the trees you plant, and think only of those who are to come after you and enjoy the shade, and new surprises will be yours each year. I have never planted a tree without thoughts of possible grandchildren who would enjoy its beauty.

There is a legend that a great-grandmother in our family, riding as a bride with her young husband to their new home, almost in the wilderness, planted her riding switch used the last day of the journey, at the foot of the avenue leading to the house. The switch had been cut from an elm and retained so

much life, that it took root and grew and has become a mighty tree, which is still pointed out to visitors as an object of interest to all who hear the story connected with it. The ground must have been damp and the conditions unusually favorable that the little switch, so long after being cut from the parent tree, should have been able to survive.

If large branches of good form are cut from willow trees in early Spring and thrust deeply (say two feet) into the ground in any damp spot or on the borders of a pond or stream, they will readily take root and in a few years become good trees. These branches should be well staked until firmly rooted.

Avoid planting trees, no matter how desirable they are, which in your locality are likely to be attacked by borers, as, for example, the chestnut in many States, and the elm by beetles in parts of New England.

DECIDUOUS TREES

First and best of all, though not of so rapid growth as other trees, are the white oak and the pin oak. These two trees must be severely pruned upon transplanting.

Next perhaps in value are maples. The sugar maple is a beautiful tree whose foliage makes a dense shade in Summer and becomes a glory of color when touched by frost in the Autumn. The Norway maple, fine in shape and quick growing, and the cut-leaved maple, of rapid growth, with drooping branches and delicate foliage, are especially valuable varieties.

Ailanthus is one of the fastest growing trees and will thrive in any soil. The foliage is almost tropical; but the female tree should always be planted to avoid the blossoms, which have a disagreeable odor.

The American ash and the beech tree of our own woods make grand trees. Both of them require severe pruning when trans-

planted. The rarer varieties of copper and purple beech have beautiful foliage and a well-grown specimen of either of these trees is always greatly admired.

The cut-leaved weeping birch and also the white birch, which is found in many woodlands, are of rapid growth and have a white bark which makes them objects of particular beauty.

Chestnut, hickory, and black walnut are all fine trees, the black walnut perhaps the best of the three.

The European bird cherry, known to us as the wild cherry, and the black cherry, which also grows in fields and woodlands, are both desirable trees.

Dogwoods are to be found in many woodlands. Mark the spot in the Spring where they blossom and transplant them in the Autumn.

The catalpa, with its immense leaves, orchid-like blossoms, and rapid growth, is invaluable for effect. I had always sup-

posed this tree to be perfectly hardy, but the only two on our place, which were set out eight years ago and had grown trunks over two feet in circumference, were killed from the top half way down by the severe cold of last Winter. I waited until the end of June and then had the dead tops cut off and the remaining branches pruned to give proportion to the height, and though at present they appear somewhat stunted, a couple of years will probably bring them into shape again.

Catalpa Bungii and the pyramidal evergreen are about the only trees that should be grown directly in a flower garden, as flowers will not thrive in a shade.

Catalpa Bungii are small trees with the large leaves of the catalpa. They are catalpas grafted on straight stems or standards of from five and a half to six feet tall, to give good effect. They should be set out in the Spring and kept carefully tied to stakes and well mulched. Every year, in

March, they should be trimmed back to what the gardeners call "two eyes," in order that they may form large heads. Thus trimmed they are similar in form to the bay tree and give the same formal effect, when planted singly at the top of a flight of steps, on either side of the end of a path, in rows on a terrace, or at equal distances on both sides of a walk.

Catalpa Bungii are hardy as far north as New York, or have always been considered so, but last Winter over forty of ours, old, well-rooted trees, were killed, although others in the same latitude, but nearer New York City, endured the severe Winter without harm. It seems, however, to be only the graft that dies, as the stems were in every case alive. In future, I shall have the grafted tops protected by wrapping in straw or other suitable covering.

There is no hardier and more beautiful tree than the American elm, but it is so often the victim of the beetle and cater-

pillar that its beauty becomes greatly impaired.

The horse chestnut is a perfectly hardy, rapidly-growing tree, with beautiful foliage, and is covered with blossoms in May.

The form of the larch, with its feathery foliage and its hardiness (in Europe it grows on mountain slopes almost to the eternal snow), makes it a most desirable tree.

The tilia, or linden, is a rapid-growing tree attaining large size. The most satisfactory varieties are the American linden, to be found in many woods, and the European, or silver-leaved linden. These trees seem to be hardy and thrive in any situation.

The locust is another tree of rapid growth which attains great height. From the end of May, for about two weeks, they are covered with white blossoms of delicious odor, which attract the bees for miles around. The early settlers on Long Island must have had great fondness for this tree, as so

many of the old homesteads there are embowered in them.

The Magnolia conspicua and Magnolia Soulangiana can be grown either as small trees or large shrubs. In intensely cold localities they are somewhat difficult to bring through the first two or three Winters, but if given some protection by driving evergreen branches into the ground about them, they will generally survive. They grow rapidly when once well established.

Everyone knows the value of the Lombardy poplar in giving emphasis to the landscape; when properly planted they are very effective.

I have been told by landscape gardeners, that the Lombardy poplar no longer flour-ishes to great age in this country as formerly, and as it still flourishes abroad, one man of great experience saying to me that he did not know of a single perfect row of these trees that had been planted within the last twenty years, in every case some having died

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and others having begun to die at the top. When a branch dies it should be sawed off immediately and the place given a coat of thick paint; the tree is then likely to put forth a new branch. But the Lombardy poplar grows so tall and slender that should a branch die near the top ten years after planting, it would be difficult to get at it to cut it away. On our own place, settled by a Huguenot some hundred and fifty years ago, there are magnificent Lombardy poplars growing about an old family burying ground, and it is a fancy of mine, that they were planted by the original settler in memory of the poplars of the France he had left in his youth. These trees are only now beginning to die. To continue the old Huguenot love for the trees, I have recently set out a row ten feet apart and three hundren and fifty feet long on the upper side of the gardens, and hope they may be exempt from the fate of the modern poplar and as long-lived as their predecessors on the farm.

The growth of the Carolina poplar is so rapid that it is most valuable as a screen. Many poplars are native in our woods and bear transplanting easily.

The sycamore, or plane tree, growing straight and tall, is beautiful in appearance, but untidy from the continually peeling bark, which makes a litter all about it.

No tree is handsomer than the native tulip, which grows to a great height, has large, glossy leaves, and bears lovely yelloworange tulip-shaped flowers at the end of May.

Purple and copper beech, tulips, catalpas, birch, magnolias, and Lombardy poplars should be set out in early Spring, so as to become well established before Winter. Dogwood and larch start so early, that it is better to transplant them in the Fall; the other varieties mentioned may be transplanted equally well in Spring or Autumn.

Trees of hardwood, such as oak, ash, and hickory, need more pruning when trans-

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planted than soft-wooded trees. Pruning requires knowledge and skill, and those who plant should inform themselves upon the subject.

Unsightly caterpillar nests that often appear on certain trees and shrubs can be easily destroyed by taking pieces of old cotton material, binding them with wire around the end of a long pole, saturating thoroughly with kerosene, then lighting, and with this gigantic torch burning the nests and the caterpillars.

EVERGREENS

Too much cannot be said in favor of evergreen trees. They are beautiful objects, give depth and background to all growth in Summer, and are a blessed delight in Winter, either as the only bit of green in a brown and desolate landscape or as a contrast in the snowy scene when the great branches bend under their load of white.

Evergreens, particularly large ones, are

difficult to make live, unless they have the sandy soil they love. In localities where the soil is of clay, it will be rather a struggle to get them well started. This done, however, they rarely die.

In planting evergreens, it is a good plan and well worth the trouble, to make a hole about three feet square and put in the bottom of this a good loam, to which a quantity of sand and very old manure has been added, then a layer of three or four inches of earth; plant the trees and fill in the hole with more earth of the same composition, watering well, and the tree is almost sure to live and make rapid growth. A little extra digging in making the hole to receive the tree, so that the roots have encouragement to put forth into good loose soil, will make the greatest difference in the growth of the tree.

Leaf-mould and old sods which have been finely chopped with the spade are the best fertilizers to use when planting ever-

greens, but if these cannot be had, the properly prepared earth, taking care that no manure comes in contact with the roots, will be sufficient.

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There is a great difference of opinion as to the best time for transplanting ever-Many persons say, that they should only be set out in the Spring, while others contend that the last two weeks in August and the first two in September is the proper time. I have set them out at all times from early April until the middle of September, but in taking young pines, hemlocks, and cedars from the woods, have had the best success by transplanting them when the first new shoots appeared. In February of this year, however, the men transplanted some beautiful tall pointed cedars from the woods into the Lily garden, the trees being moved with great balls of frozen earth about the roots. They were all from fifteen to twenty feet in height, and of eight but one died, and this occurred probably because

the entire work on this tree was not finished the same day. Having large, heavy roots, it was only possible to dig them up with a ball of frozen earth. These trees give such an appearance of age to this garden that no one could imagine it was not yet eighteen months old.

Some of the native evergreens, the white pine, hemlock and the many varieties of cedars, as they are called by the uninitiated, —junipers I believe they really are,—transplant easily and are to be found in many localities.

The cedar, growing tall and pointed, is regular in shape, as if sheared yearly, and is an excellent substitute for the cypress of Southern Europe. Landscape architects have learned to appreciate its value, and are now using these trees with fine effect. They have a perfect columnar growth and take the place of the handsome pyramidal evergreens of rare varieties used in formal gardens. Young cedars have a tap root,

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and when taken from inland pastures, which are their natural haunt, will generally be found growing closely against a large stone or rock. It seems that the seed falling there finds shelter from the hot sun, and severe cold, and that the young shoot is thus better able to struggle through the first year or two. A tree five or six feet in height will generally be easier to transplant than one of but three feet, for the tap root will have been absorbed in the larger tree. I have spent many interesting mornings first selecting my trees, and then watching them dug up.

Evergreens are more difficult to transplant than deciduous trees, for they usually grow where it is stony. But if you once get the tree out with all its roots, keep it from drying up, and plant it carefully, it is almost sure to live. Four good sized trees, say six feet high, are as many as two men can dig up in a morning. The larger trees, as already noted, can be successfully moved only

in Winter, and it is a day's work for three or four men to get out and plant one tree, unless the conditions are unusually favorable.

When planting shrubberies with evergreen trees and shrubs for a screen, they can be placed closely together at first and thinned out as they grow. I have two or three such shrubberies, from which it seems always possible to take out an evergreen and a shrub with benefit to those remaining, so quickly do they grow.

The Arbor vitae pyramidalis, of close growth and lending itself easily to shearing, is one of the hardiest and most satisfactory evergreens for formal planting.

The Irish juniper is another beautiful pointed tree with blue-green foliage, but it is not hardy in severe Winters. Last Autumn I protected mine, first by spreading a heavy mulch of stable manure around them and then by driving three cedar trees cut from the woods into the ground about each tree, tying all together with heavy cord, but they

TREES

did not survive. Pyramid box treated in the same way also died. In future I shall have the box trees and other tender evergreens lifted from the ground, planted in boxes and stored through the Winter. In cold localities where the thermometer may drop to forty degrees below zero and not rise above ten below for six weeks at a time, as it did last Winter in our part of the country for the first time within the memory of the oldest inhabitant, it is best to take extra precautions to prevent great disaster in the garden.

In a newspaper last Spring I read the statement, which struck terror to my heart, that some astronomer had announced that the cold, wet Summer of a year ago followed by the severe Winter, was due to spots on the sun, denoting abnormal atmospheric conditions; that it would take nine years for these spots to disappear, and that accordingly the weather for nine years would be unusual. There may be nothing in this sup-

position, or it may be true, but it is well for every gardener not to take any chances.

In my garden the severe Winter of 1908-4 caused many losses. Coming out the middle of April to spend a few happy days superintending Spring work, I found a sad state of things. Besides the Catalpa Bungii, Irish juniper and the standard box trees, all the privet hedges, most of which were the common privet, supposed to be hardy, were killed to the ground. All the Crimson Rambler and Wichuriana Roses were dead nearly to the ground, and, although they grew tremendously during the Summer, trellis and rose arches were bare until late in the season. Every Honeysuckle on the place was entirely killed, and all Clematis, Wistaria and Trumpet Creeper had died to the ground. During the Summer they have, however, sent up shoots of surprising growth, as if to recoup their reputation of being hardy plants. Deutzias, eight feet high, and also Vibernum plicatum were killed, while more



TREES

than half the low-growing Roses were dead to the ground, and the budded ones have this Summer grown only Sweet Briar bushes—a warning lesson never to buy Roses except on their own roots.

The hybrid Perpetual and other Roses that survived, produced great quantities of flowers. I have never seen finer blooms of Baroness Rothschild, Margaret Dixon, and Kaiserin Augusta Victoria than those of this year in my garden.

As I walked about my beloved garden on that April day and saw the sad havoc wrought among the plants by the cold Winter, sorrow and despair, such as the gardener will understand, took hold of me. Tears are the most futile things in the world and serve only to make one homely and unattractive and a nuisance to others, but when the men went off to dinner I retired to the farthest corner of the place and, with only my dog to see, who whined in sympathy, wept bitterly. But courage and a determi-

nation not to be overcome, quickly came to my aid, and a short time after I was preparing lists for new plants and trees to make good the Winter's damage.

The spruces (Abies polita, Abies pyramidalis) and the arbor vitae (Thuja Vervaeneana and pyramidalis) are hardy trees of pyramidal form, suitable for use in a garden because of their compact growth.

The Irish yew is another decorative evergreen, but it must be well protected from the Winter's sun and from too great cold. Japanese cedars, the *Retinispora* group, are all compact in growth and submit themselves to shearing. The *Retinispora squarrosa* has beautiful feathery blue-green foliage.

The Retinispora plumosa, or Japanese cypress, has a delicate foliage and may be grown on tall stems with heavy heads like the standard bay trees. It should be grown in tubs, however, and may be removed in Winter to the house for decorative effect, or stored in a cellar that is not too cold.

TREES

A light, frost-proof cellar for storing roots and small, half-hardy trees, such as box and bay, is as necessary a requisite for a large garden as a properly equipped tool house, and enables one in this climate to have the pleasure of certain beautiful things that otherwise it would be impossible to keep through the Winters. In case there is no cellar, tender evergreens, such as Retinispora squarrosa, Irish yews, junipers, and standard or pyramidal box, should be protected by a heavy mulch of manure spread over the roots and close up to the stems of the tree, and by binding rye-straw or corn stalks about each tree and tying all together with cord. Winter sun shining on the frozen foliage seems to do the damage, and both straw and corn stalks keep the sun away and yet admit sufficient air.

Beware of setting hens, storks standing on one leg, pigs with curly tails, and other animals cut in box-wood that some nurserymen display. It is true they are curious,

but to give animal form to a tree can never be other than bad taste.

Horace Walpole, in his essay on "Modern Gardening," first printed in 1771, criticises the fashion that "stocked our gardens with giants, animals, monsters, coats of arms, and mottoes, in yew, box and holly," remarking that "absurdity could go no farther;" and again, after inveighing against "the tricks of water works to wet the unweary, not to refresh the panting spectator," says: "To crown these impotent displays of false taste the shears were applied to the lovely wildness of form with which nature had distinguished each various species of tree and shrub. The venerable oak, the romantic beech, the useful elms, even the aspiring circuit of the lime, the regular round of the chestnut, and the almost moulded orange tree were corrected by such fantastic admirers of symmetry."

Of large-growing evergreens suitable for the lawn, there are the Austrian pine and

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TREES

Scotch pine, the Norway spruce and the Colorado blue spruce, Nordmann's fir and the Colorado fir. These are all hardy and of rapid growth. But avoid planting tall evergreens near the house, for their dense foliage shuts out sun and light, and gloomy rooms are the result.

The end of August is the best time to shear arbor vitae, spruce, box trees, hemlocks, retinispora, and, in fact, all evergreens. By this time they have completed their new growth, and will have time before the cold weather begins to recover from the shearing, which sets them back somewhat. The shearing not only preserves the natural shape of these trees, but causes them to grow thicker and handsomer.

After your horse and dog, there is nothing that can better inspire love than a beautiful tree which you have yourself planted, pruned and cared for. If undisturbed, the life of the tree will go on for generations after the short span of human years has

come to an end, and will be a comfort and a blessing to your children's children. Sitting in its grateful shade in Summer, the rustling leaves will tell to the imagination tales of the one who planted it and of those whose lives have been lived beside it, and in Winter its bare brown arms stretching against the sky will speak of the resurrection of the year and the coming Springtime, when green leaves will crown it anew, and bring the reminder, "though dead yet shall ye live."

The following lists of a few useful trees and shrubs may be of service to the reader:

SIX VERY SATISFACTORY TREES WHICH ARE COMPARATIVELY FREE FROM THE ATTACKS OF INSECTS, LIVING TO GREAT AGE, AND GIVING FINE SHADE, ARE:

Oak,
Locust,
Tulip,
Copper Beech,
White Birch,
American Ash.

TREES

SIX SHRUBS THAT ARE HARDY, RAPID GROWING, ATTAIN LARGE SIZE AND BEAR BEAUTIFUL FLOWERS, ARE:

White and purple Lilac, French varieties,

Japanese Quince,

Syringa grandiflora,

Althea Jeanne d'Arc, pure white,

Deutzia graeillis,

The native Azaleas from North Carolina,

particularly the Arborescens, white,

Arborescens rosea, pink, and lutea, flame color.

These Azaleas should be given a northern exposure and heavily mulched in Winter with evergreen boughs driven in among them.

Four of the Best Hardy Tall Growing Evergreens, are:

Colorado Blue Spruce,
Colorado Fir,
Hemlock,
White Pine.

Four of the Best Hardy Evergreens for Use in a Formal Garden, all of them Pyramidal in Form, are:

Native Cedars,
Thuja pyramidalis (Arbor Vitae),
Abies pyramidalis,
Thuya Vervaeneana.

Five Hardy Shrubs Growing about Six Feet in Height Bearing Handsome Flowers or Berries, are:

Hydrangea grandiflora paniculata,
Oak leaved Hydrangea,
Lonicera alba, standard Honeysuckle,
Viburnum plicatum, Japanese Snowball,
Berberis Thunbergii—Barberry,
Rose Acacia.

Six of the Hardiest Vines that will Withstand Very Low Temperature, are:

Bitter Sweet,
Clematis Paniculata,
Enonymus Radicans (Evergreen),
Sweet Scented Wild Grape (Vitis Odorata),
Virginia Creeper,
Wistaria.



PERENNIALS AND OTHER FLOWERS

CHAPTER V

PERENNIALS AND OTHER FLOWERS

THEN one whose experience in gardening has been bounded by a few varieties of bedding-out plants like Geraniums, Coleus, Salvias, and Petunias, begins to plant perennials, she is apt to be disappointed with the first year's results. She has seen great clumps of perennials in a friend's garden, has read of their beauty, has seen pictures of them in catalogues, but when her Paeonies bear no blossoms, her Phlox has only two or three heads of bloom, the Larkspur one or two spikes of varied blue, and the Valerian, Veronica, Monkshood, and Hollyhocks all flower sparingly, she cries in her heart for the bedding-out plants which were her mainstay in former years. Let her have patience, however, and

wait for the second Summer of the perennials. Coleus will then no longer find a place in her garden, and the number of Geraniums planted will be reduced to a minimum.

Would that the Coleus might vanish from the land! But, after all, it is not the plants, poor things, but the people who grow them who are to blame.

Geraniums cannot be condemned to the same extent, for they bear flowers, and have besides done valuable service during all the years when gardening consisted largely of beds of every conceivable shape, filled with them, of one color or another. They do not reach perfection before July, and die with the coming of the early frost.

No matter how small may be the place devoted to flowers, plant it with perennials, fill in the chinks with hardy annuals raised from seed, and there will be flowers of many varieties to bloom from May to November.

Perennials increase in size and beauty

PERENNIALS

from year to year, and by separating the roots when well grown, the stock can be increased indefinitely. The same money formerly spent upon bedding-out plants will buy bulbs, perennials and shrubs in quantities, which will beautify your grounds to an extent undreamed of in the days when the bedding-out plants held masterful sway in this country.

This year nearly all the Larkspurs in my garden were seven feet tall, and many of the plants grew so large that a man unaided could not reach around them to tie to the necessary stakes; and there were also seven shades of blue among them; the Hollyhocks sent up five and six great stalks, many of them eight feet in height; the *Boconia cordata* rose far above a tall man's head; the *Spiraea aruncus* was six feet high; Cardinal flowers, Phlox, and many Lilies grew to unusual sizes, and nearly all the flowers blossomed before their accustomed time; in fact, all plants that survived the great severity of

the previous Winter seemed to have benefited from the cold.

Last Winter many hardy plants that perished in our part of the country lived under equally low temperatures in other places. Evidently these particular plants were not accustomed to the unusually low temperature, zero or a few degrees below having been the maximum of cold they had previously experienced, while in other places, although as cold, or even colder, the temperature did not, as with us, fall below that of previous Winters. Foxgloves and Canterbury Bells, usually entirely hardy, suffered greatly; so did the Gaillardias; the Helianthus florus plenus was killed; but Tritomas, young plants, too, not considered very hardy, came finely through the Winter, the foot of mulch with which they were covered having completely protected them.

There is no more decorative plant for tropical effect that can be grown in the front of a shrubbery or planted at the back



Vase of Campanula Pyramidalis
August twenty-first

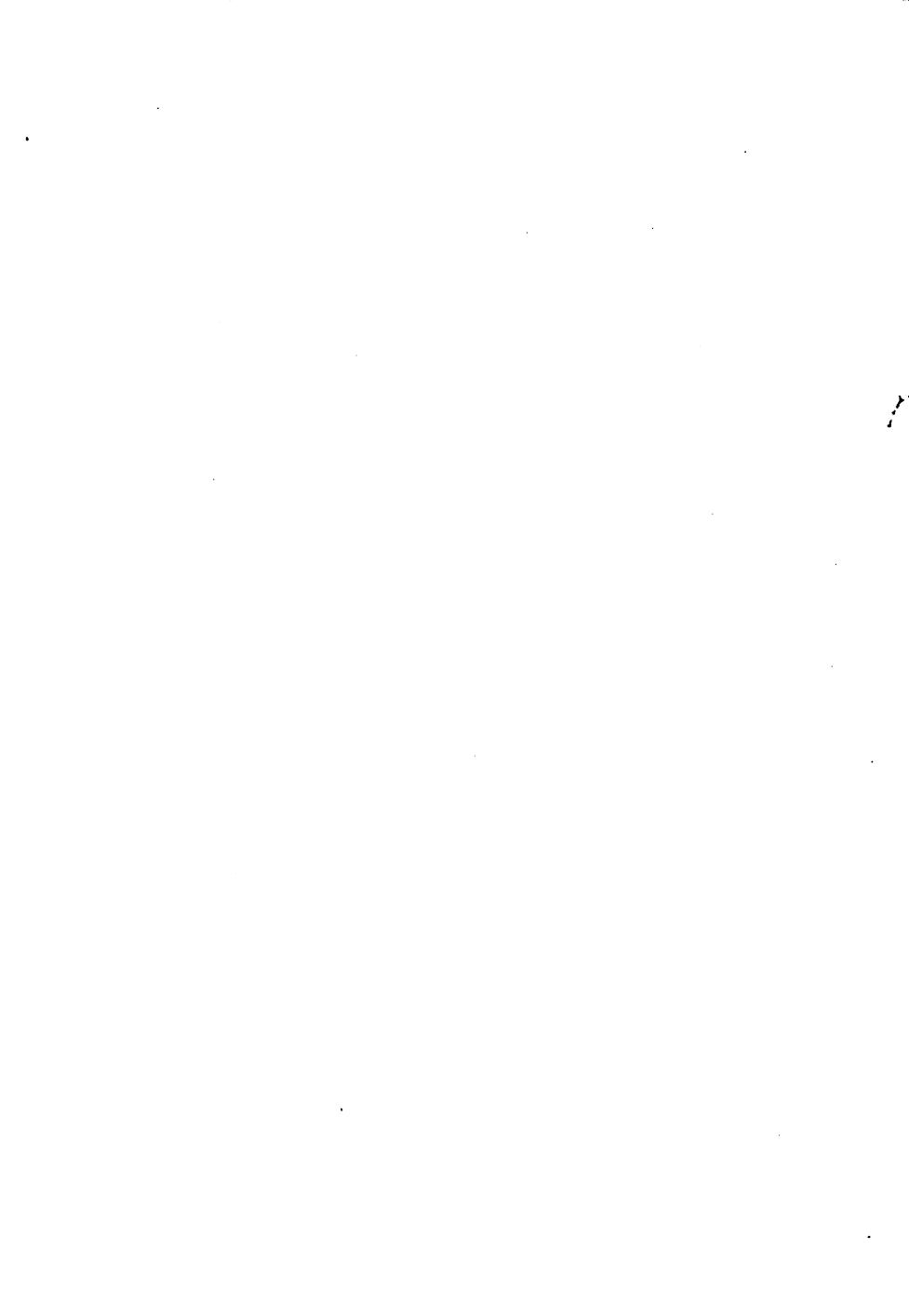
PERENNIALS

of a border than *Boconia cordata*. The leaves, immense in size and beautifully indented, are rather a bluish-green in color, and each stalk bears a plume of feathery white blossoms, often eighteen inches long. The first year, this plant may not be taller than three or four feet, but seen when two or three years old, no gardener will be without it. The roots can be separated and it can be grown easily from seed.

Last September I made acquaintance at Botzen, in the Austrian Tyrol, with a plant of exceeding beauty. Arriving late one warm afternoon after a tiresome journey, we came into the cool, shaded, white marble hall of the hotel, and on either side of the foot of a fine stairway, rising from a bank of Maidenhair fern with a background of Palms, was a new plant. Slender stalks, quite six feet high, whose entire length was covered either with white or palest blue bell-like flowers, rose against the green of the palms. I began to ask questions in my

rather imperfect German before going to my room, and the wondering hotel clerk, who doubtless thought another mad American had appeared to cloud his serene horizon, could give no information about them beyond saying that they were supplied to the hotel by a florist whose address he would give me.

The next morning, an early expedition was made to the florist's garden, where we found the admired plant in all stages of growth. But the gardener was crusty, and even a generous douceur had little softening effect. He had no seeds; he was not sure where he bought the seeds; the plant did not bear the tall stalks until two years old if wintered in a cold frame, or three years if grown in the open ground and protected in Winter by a heavy mulch; and, last of all, the name of the plant, Campanula pyramidalis, was dragged from him. I determined to have these flowers in my garden, and set about their pursuit at once upon my return.



A single plant of Platycodon July tenth

PERENNIALS

Seeds of these plants, whose common name is Chimney Bell flower, are listed in many catalogues, but my impatience to have the plants blooming in the garden was too great for me to wait the two or three years necessary for raising them. This Spring I was able to make a beginning with only two dozen; and they have done fairly well, but do not compare with the wonderful plants of Botzen. They were attacked by the same white grub that is the enemy of the Larkspur, and six were destroyed before I knew it, but coal ashes lightly dug into the ground around them with a small trowel proved a specific. The flowers appeared the first of August, and continued to bloom for more than six weeks, but the stalks were only four feet high and the best plant bore but five of them.

From the middle of June until the third week of July, *Penstemon barbatus Torreyi*, which has a small flower of vivid scarlet growing on tall, slender spikes that in their

second year have reached six feet in height, makes a brilliant patch of color in a border and attracts much attention.

Penstemon Digitalis has heads of white flowers fully nine inches long, is a plant which blooms all through July, is hardy, increases rapidly, and is most effective.

Another hardy white flower, about as large as a twenty-five cent piece, with a pale pink center, which grows on long stems, is Agrostema alba. The plant is about three feet in height, and has somewhat sparse gray-green foliage. New flower-buds form continually in the axils of the leaves; if the flowers are cut as soon as withered the plant seems to bloom indefinitely, and is valuable for this reason. I have amused myself during this Summer by cutting the faded flowers from a clump of these plants and from one of Centaurea, with the result that they have continued to bloom profusely from June until the middle of September.

Every gardener knows the value of not

PERENNIALS

allowing the seed pods to form and weary the plant by taking the strength that otherwise would go to new root-formation. In fact, every plant that blossoms is benefited by cutting, which enables it to produce flowers in greater abundance, and to make larger root growth.

Dictamus fraxinella, both the white and pink, with particularly beautiful glossy foliage, are valuable plants. Absolutely hardy, the roots increase rapidly, and may be separated from time to time. The flowers blossom the end of May and are borne on strong stems in panicles about eight inches long.

The new varieties of hardy Carnations, such as the Margaret and the Perpetual, produce most creditable flowers, not so large, certainly, as the many beauties that the florist's art brings forth, like "Mrs. Lawson" and "Fiancée," but quite fine enough in form and color to satisfy the grower of hardy plants. Sow the seeds in early May,

in finely pulverized, rich soil, with which a little bone meal has been incorporated, and about the first of September transplant them to the places where they are to remain. The seeds are very sure to germinate, and an ounce will raise a large number of plants. I keep mine in long rows so that a cultivator may be run between them. The plants can be set out about eight inches apart, and should be tied to stakes, as the stems grow very long. If carnations are well watered from the moment the first sign of a bud appears, they will not only be more prolific in bearing, but the flowers will be larger, just as the Japanese Iris repays a thorough drenching several times a week. After three years it is a good plan to raise fresh Carnations, as the flowers become small and the blossoms scarce. Cover the plants with some leaves or litter in November, when the rest of the garden is put to sleep.

Perennial Lupins, both blue and white, blossom freely in early June, growing from



PERENNIALS

two to three feet in height, and are hardy and effective. It is a good plan to soak the Lupin seed for twenty-four hours before sowing, which should be done in mid-April.

Liatris, a plant growing about five feet in height, bears immense spikes of light purple flowers and continues in bloom throughout August.

Veronica longifolia blossoms during August and is one of the handsomest blue flowers in the garden, in fact, after the Larkspurs, probably the handsomest. The plant is perfectly hardy and increases rapidly. Like the Phlox, every shoot bears a spike of fine blossoms nearly a foot in length; these are of a beautiful blue color. The common name of the flower is "Speedwell," and I never see it without thinking of Austin Dobson's poem, "Sing Blue of Speedwell and my love's eyes."

Another blue flower that is but little grown, is Greek Valerian, a plant about a

foot high, which is so completely covered about the end of May with delicate blue flowers as to be like a bit of sky fallen into the border. I have but one plant, sent me from her garden by a friend whom I have never seen.

Another lady whom I have not the pleasure of knowing, very kindly sent me some seeds a year ago. The name and the description of the flowers which the seeds should produce were lost, but the seeds were sown in May, came up quickly and during the summer, grew to be large strong plants. Set out in beds in the Autumn, they came unharmed through the severe Winter and in the Spring grew to be four feet high with strong, wide-spreading branches. They were rather a disappointment, for the flowers seemed to be only faded, yellow morning glories. But the first evening late in May, when the weather was warm enough to entice us into the garden after dinner, there stood the great plants covered with a mass

A clump of Voronica Longifolia

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of flowers of delicate texture, larger than the largest Japanese Morning Glory, and of a pale yellow color. They bloomed continuously for over two months, and were nightly objects of comment and admiration by all who saw them. They were the Oenothera lamarchiana or Evening Primrose, and I am told it is unusual for the plants to grow so large. They appear to best advantage when planted in front of low growing evergreens, whose impenetrable foliage gives them an effective background.

By the third year the Platycodons become large, strong plants, quite three feet high, each bearing possibly a hundred blossoms. When planted in clumps of three or four together they are very effective. Their period of bloom lasts from the middle of July for a month or more, the blossoms appearing when the Larkspurs are first cut down and continuing well into the reign of the Veronica longifolia.

Boltonias are also effective plants for the

edges of shrubberies. They grow from four to six feet in height, and from the middle of August to the middle of September are a mass of blossoms which are quite like the small wild Asters. The white variety is Boltonia glastifolia, and the pale pink, Boltonia latisquama.

Besides the Boltonias, the following hardy plants flourish and look well on the edges of shrubberies: Boconia cordata; Hollyhocks; Jerusalem Artichoke, which grows eight feet tall and bears single yellow flowers late in September and through October; Marshmallow (Hibiscus moscheutos); Japanese Tree Paeonies; Columbines; Trilliums; Oriental Poppies, and hardy Sunflowers. Various clumps of these plants will give successive bloom and color in front of the shrubbery from May until November.

Several years ago, when planting a new garden I decided to have the flowers in each border of one color only. A friend to

whom I confided the scheme said it would not be successful; that when the blue border was in its prime, the pink one would be without flowers, in fact, that the four borders would never be equally handsome or all in such a condition at the same time, that their color would at once strike the eye. But this has proved to be a mistake. The borders are always full of color from the end of May until everything is killed by the frost.

At the back of each of the borders Holly-hocks were planted closely together, white in the white border, pink and red in the borders for those colors, and, as I know of no blue Hollyhocks, pale yellow ones were put at the back of the blue border. Other plants were set in clumps of four to six, with four or more clumps of each kind. Summer flowering bulbs and annuals were then planted about the first of June in all the crevices to help out late August and September.

In the blue border were blue Columbines; the one plant of Greek Valerian, which was blue for a month; then there were German and Japanese Iris, Larkspur in many shades of blue, each of which gave three crops of flowers by cutting each stalk as soon as it ceased to bloom; blue Canterbury Bells (Campanula glomerata and Campanula macrantha); Scabiosa Caucasia; Platycodon; Veronica, and Monkshood. Still another hardy plant with blue flowers was Verbena venosa, which will either grow about eighteen inches high or can be pegged down and will during three or four months cover the ground with its heads of blue flowers. As annuals, I planted Ageratum, which had been raised from seeds sown in hot-beds the first of March; pale blue Centauria, Emperor William Centauria, and blue Asters.

The pink border had Spiraea palmata elegans; a number of clumps of pink Phlox, each clump of a different shade; Lilium

rubrum; Agrostema; Carnations; and for annuals, pale pink Balsam; Asters; Phlox Drummondi; and a quantity of pink Gladioli, which were planted about the 10th of June.

The white border had three clumps of Boconia cordata; a quantity of Foxgloves, planted in the back close against the Hollyhocks; white Canterbury Bells; several clumps of Hyacinthus candicans; white Platycodons; four great clumps of Japanese Iris, which are beautiful objects for a month; white Phlox of both early and late varieties. As the flowers in these borders are kept only for show, by breaking off the heads of the Phlox immediately upon their ceasing to bloom, the Phlox seems always to be in blossom. There were also white Rockets; a quantity of Valerian; white Columbine, and a number of Lilium album. White Balsam, Asters, Sweet Sultan, and Gladioli were also planted.

The red border was more difficult to ar-

range because of the many shades of red; but in nature these do not seem to clash as so often do the different shades of the same artificial color. There were scarlet Lychnis and also Cardinal flowers, which seemed to flourish there as well as in their native haunt by the stream; the red Penstemon; Spirae palmata; Tritoma Pfitzerii, which begins to bloom in July and continues until the frost lays it low; Phlox of the variety Cocliquot, which is a mass of scarlet. Some Poppy seeds thrown in here and there in early Spring gave many gorgeous blossoms in July, coming up at random among the other plants. Several clumps of Salvias and some bright red Cannas gave continuous bloom, and red Asters, Cockscomb, and scarlet Gladioli helped to make brilliant color for the September garden.

These borders are, each of them, four feet wide and seventy-five feet long and hold many plants.

It will be noticed that no yellow and no



Boconia Cordata July seventeenth

purple flowers were admitted to any of these borders. In another garden it will be interesting to arrange these colors in the same way. But so many flowers are excluded by this treatment of colors, that borders thus planted would be a very incomplete garden by themselves.

It is also interesting to watch the different color phases of the garden and to see how certain colors predominate at certain times. For instance, at the end of May and for about three weeks, pink, white, and deep reds dominate all the other colors in our gardens. There are in blossom at that time Syringas, Spirae Von Houttei, hardy Poppies, Paeonies, Foxgloves, Sweet William, and the hardy Roses;—each of these flowers in large quantities.

As these gradually pass, we become aware that blue and white flowers are prevailing; there are Canterbury Bells, Foxgloves, Japanese Iris, Centauria, and the great

Larkspurs. Then suddenly along in July, the color scheme becomes red and white; Poppies, Phlox, Crimson Ramblers, Penstemon, Lychnis, Salvias, Cannas, the tall white Auratums, *Boconia cordata*, and Iris.

Then for a time no one color makes itself felt, but all prevail equally until in late August, when white and yellow become dominant; white Lilies, Hydrangeas, and Altheas; Rudbeckia, waving its great branches of golden blossoms in every breeze; lovely Calendula in many shades of yellow; tall, flaunting, orange Marigolds; Sunflowers; Coreopsis, and Gaillardias.

And when, at last, the relentless frost comes to blacken and destroy our garden by one cold night, the colors seem more glorious and varied than at any other time; and Cannas, Gladioli, Salvias, late Lilies, the third blossoming of the brave Larkspurs; Gaillardias; Phlox; hardy Sunflowers, and many annuals are in their prime.

But the Japanese Anemones, the Chrysanthemums, Monkshood, and some faithful Roses stay by us until quite thick ice has formed. If you have a few plants each of Madam Plantier, Clotile Soupert, pink Soupert, La France, Mrs. Lang and the Jubilee Roses, you will be able to cut a handful of these flowers every day from the end of May until late in the Autumn.

The annuals come in most successfully for filling in among perennials and for giving flowers in late Autumn;—such as Asters, of which one can never have too many, Zinnias, Cosmos, Cockscomb, Centauria, Sweet Sultan, Phlox Drummondi, Calendulas, Balsam, the pale pink and the white, whose flowers are as large as Camelias; Snap Dragon, and Stocks. These last two plants should be started very early and are most effective when set in large masses. I buy only the seeds of white Stocks, but, alas! there are always purple ones among them, as mistakes

are sometimes made by the most careful seedsmen.

Godetias are valuable annuals, giving for the three months from June until September continuous bloom in purple, red and white flowers, white blotched with red, and pink spotted with crimson. They should be set a foot apart and do well in a somewhat poor soil and in partially shaded places. If the seed pods are cut continually they make a long period of bloom and are as satisfactory in a border as *Phlox Drummondi*.

In a bed containing three dozen plants of Tritoma Pfitzirii, set two feet and a half apart to give full room to spread out as they became large, I planted scarlet Zinnias to fill up the rather sad-looking bed for the first Summer. Imagine the horrible effect when in mid-July both plants began to bloom at the same time—Tritomas orange scarlet and Zinnias salmon pink. Supposedly scarlet Zinnia seed had been sown, but it proved upon blossoming to be pink.



Seeds of Hollyhocks often fail to produce flowers like those of the original plant from which they were taken, as the bees probably mix the pollen. And self-sown Phlox is almost sure to revert to the original purple.

Every year when the Phlox blooms I find purple and magenta blossoming against scarlet and pink, and, because it is not possible for me to root out a plant in flower, I tie strips of black cambric low down around the stems of such plants, that they may be recognized and removed when the Autumn work is being done. If, however, all the purple Phloxes are placed somewhere in a mass, together with a quantity of the white, they become at once an object of unusual beauty.

The seeds of Salvias germinate easily and by sowing them in a hot-bed or in a box in a sunny window early in March, plants can easily be raised which should begin to blossom the end of June. The seeds may even be sown in finely pulverized soil in the

open ground by the middle of April, if given some protection on frosty nights, and the plants will begin to bloom in August.

In a bed where Salvias bloomed last year, Lillium album were planted the first week in April among Tulips that were just putting up their green heads, so that the soil was disturbed as little as possible. Later, white Asters were planted in the same bed wherever there was space. When the time arrived for the first weeding of this bed, forty seedling Salvia plants were taken from it. The seeds had fallen the Autumn before, and the germ of life had survived the long, cold Winter.

If anyone is so fortunate as to have a stream running through her place or a small pond, let her rejoice greatly and see what beauty she can develop around it. The effect should be natural, as if the hand of man had taken no part therein. Willows should be planted first for the background,

and then great clumps of Rhododendrons. The tall grass Arondo donax, the tall and tropical-like Boconia cordata, Japanese Iris, white Lysimachia, commonly called "Loosestrife"; Hibiscus, red Bee Balm, Eupatorium, tall-growing with large heads of old-rose-colored flowers, Cardinal flower and Ferns from wet places are a few of the hardy plants that will flourish in such a situation.

The Water Hyacinths, and the double-flowering Arrow-head, which bears white blossoms on spikes two feet tall, can be grown on the very edge of the pond where the water is only two or three inches deep. In planting, firm the roots well into the mud.

Of hardy Water Lilies, the English Nymphae flava, Nymphae odorata rosea, the Cape Cod Water Lily, deep pink in color, with the Nymphae odorata, our native white Water-Lily, should give the amateur a sufficient number of aquatics with which to

should be planted about the 15th of May. It is generally enough to press the root well into the soil of the pond, but if the mud does not seem to be rich, then the Lily roots can be planted in boxes of very rich soil and sunk in the pond. Directions are occasionally given to tie the root to a stone, and throw it into the water, but the Lilies will be more apt to grow if planted directly into the soil of the pond or stream. These lilies are hardy and can be allowed to remain in the water.

One can learn something from almost every garden, no matter how humble. In walking about a town or village, I often pass a simple door-yard slowly two or three times, and sometimes hang over a fence to see what is within. There may be plants which I do not know, or a specimen of some variety brought to a finer degree of perfection than I have ever been able to attain with

A little pond ready for planting October minth

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the same flowers. A good gardener, like a great painter, or a fine musician, is always lenient with the failures and shortcomings of the beginner. Knowing too well his own trials and struggles, he can sympathize with and overlook the mistakes of others. It is well, therefore, never to look with a critical eye upon the weeds among another's flowers, lest you should some day become aware of those in your own garden.

It is, also, always possible to find gardens far more beautiful and more elaborate than our own which we have worked over and dreamed about and which is dear to us, but we can admire and learn from the success of others, and still return with a contented heart to our own little corner of the earth.

My own garden lies in a long, rather narrow valley, bounded on either side by ranges of high hills, which we call "mountains." Through the center flows a stream, which still bears its mellifluous Indian name Wawayanda, because of its curving, winding

course through the broad meadow lands, where mild-eyed cattle graze in the luxurious grass. Great trees line both its sides, and on every hand oaks, black walnuts, chestnuts, ash and maple trees are interspersed with dark cedars. Cultivated uplands join the thickly wooded hills, and the quiet beauty of the scene so wins upon us that when the valley beautiful lies spread out before our eyes upon returning from journeys across the sea, we give thanks that our lives have been cast in so lovely a spot.

At the upper end of the valley is a prosperous, busy town, with handsome country places, inn, golf club, and much of the environment of modern existence. In Summer, life goes merrily with the people there, who drive gaily about in all manner of equipages, clad in fair attire. This is all very attractive; but a spirit of greater charm surrounds a little hamlet some miles down the valley where it broadens so as to be no longer narrow. Here a few quaint houses

straggle along the roadside, tall trees tower above their roofs, and gardens surround them, where great bushes of Box and clumps of grandmother's flowers are grown. Time has left the hamlet untouched. No noise, no hurry, no bustle disturb the atmosphere. Life goes gently there and peace seems to brood over it with folded wings.

Back from the street, surrounded by a shady lawn, is the tiny church with raftered ceiling where our family has worshipped for generations; a church where twenty people are a fair congregation; where each has from childhood known the older people, and seen the young men and women brought as babies to be christened; and where for many years the rector has been a dear old man with snowy hair, beloved by all, who also give him from their hearts the affectionate title "Father." He knows the hopes and fears, trials and joys of all his flock and makes their joys and sorrows his. The service over, the congregation waits to take his

hand and to greet one another before parting for the week. Some walk to their nearby homes and others drive away for miles over the hills to their houses on distant farms.

Behind the church are sheds for the protection of the horses of those who drive. Frequently I drive myself in a low phaeton to the church, and my own mare, an animal of great intelligence whom no one else is allowed to use, understands perfectly when Sunday comes, and almost without guidance makes straight for the little village and the tiny church. She is a creature of superior and somewhat haughty manners, and not only domineers the other horses in the home stable, but fairly browbeats those with whom she comes in contact in the church sheds. They, faithful creatures, mow great fields of hay, plow, and draw heavy loads, and the light task of taking their families to church makes Sunday for them a day of rest. My petted animal hears their tales of the hard



week's work, and recounts to them her life of ease, telling how her only labor is to take her mistress upon pleasure drives. But last Summer her pride met with a downfall and her haughty spirit was brought low. The weather being very warm, I bought her a hat, bound the holes cut for her ears with red and adorned it further with a gay red chou. She wore it proudly for a few days; then came Sunday. Out of the church shed she came that day with a sadly subdued air; seemed to have no spirit; hung her head, and returned home so dejectedly that I feared she might be ill. The next day the united strength of two men could not put on that hat. She had been laughed at and jeered at by her companions in the shed for her frivolity in taking to millinery, so that her pride was broken and she learned the lesson of meekness.

The South wind sweeps up our valley at all seasons, gently at times,—fanning us tenderly on warm Summer days, and giving

us a soft zephyr on nights that without its cooling breath would be unbearable. At times, it deserts us for days, coquettishly allowing us to realize how much we rely upon it in its milder moods, and again, when vexed, it comes almost like a tornado, shrieking aloud in its wrath. The great trees sway and bend in its blasts, tall plants are laid low, and much damage is done by its rage; and because of this south wind, tall plants and young trees must be well staked. But much judgment is required in tying up the flowers; while due support must be given them, the strings should never cut the tender stalks, and a clump of tall-growing things must not be tightly tied around the middle to produce the effect of a slenderwaisted young woman.

There can be no doubt upon the question of the gain in health and strength to those who live much in their gardens and do active work among growing things. A couple of

hours spent in weeding or transplanting, or in tying up climbing Roses and vines, gives exercise to unused muscles, keeps one lithe and supple, and forbids the dreaded adipose tissue to put in an appearance.

For those who are "getting on," whatever private opinion may be as to that period, garden exercise is a sure preserver of youth. The arms are raised above the head, one bends from the waist, gets up and down on the knees, all of which is exercise which is not work but delightful play. It is wonderful, too, how large a part of your life the love of gardening can become, what an absorbing occupation, and what solace in time of sorrow. A friend who has had one garden for fifty years, met with a terrible grief not long ago, and after a few months she wrote me, "You will be glad to know that the Comforter comes to me directly through my garden than through any other earthly source."

Once, in Rome, I was taken painfully ill 161

after three busy weeks spent in seeing the wonders and glories of the city. Nothing gave me relief, I had no rest by day, no sleep by night. Even recalling to my mind the miracles of art recently seen could not divert me from the suffering, but thoughts of the far-away garden, its present state, the flowers then blooming, what should be planted in the coming Autumn, what new work should be undertaken in the Spring, served as an anodyne, and brought to mind some words written years ago in our house-book:

"When tides of life run irk and stern,
Think of the farm at Meadowburn."



A	GARDEN	OF	LILIES	AND	IRIS
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CHAPTER VI

A GARDEN OF LILIES AND IRIS

SOME years ago I heard of "A Garden of Lilies," a garden where nothing else was grown. The phrase and the description of this garden remained in my mind and the desire to have one where Lilies particularly should be grown took great hold of me. In my imagination I saw the tall, graceful stalks crowned with their beautiful flowers, cut the lovely things and breathed their delicious perfume. After reading all that I could find upon the cultivation of Lilies, and studying the catalogues, I finally made a beginning.

The place where I planned to have this garden had been for years a garden where small vegetables had been raised. The ground sloped slightly towards the southeast,

enough to continually wash the top soil to the foot of the slope, which was partly corrected by terracing; the soil was hard and clayey and had never made a very successful vegetable garden. The first thing was to plan the best arrangement of the space.

Some time before, a friend had given me a plan of her garden, which was old when the Revolutionary war was ended. Washington and his officers had walked there, and for the hundred and thirty years that had passed since those days the place with its beautiful garden had remained in the same family, loved and cared for in every generation.

This old garden has the formal-shaped, Box-edged beds seen in all Colonial gardens. The Box, tall and thick, entirely fills the beds in some places, and the bushes of old-fashioned Roses, Paeonies, Madonna Lilies, and many of the other old-time flowers have grown on, increasing in size and beauty, while generations who have tended them have followed each other to their last long sleep.



Hydrangeas around the pool July twenty-third

The straight Box-edged paths, and the formally shaped beds surrounded with Box, are found in all of the early gardens, the idea having been brought over from the old country by the colonists who planned their new gardens here, after the manner of those they had known and loved at home, and grew wherever possible the flowers they had tended across the sea.

The English and early American formal gardens were a modification and simplification of the elaborate Italian gardens, where architectural structures, tall cypress trees and ilex and myrtle hedges were the principal elements.

To many persons who have never been gardeners themselves, or studied the pleasing art, all formal gardens are Italian gardens, and since making this new one I have spent much time in explaining, that it is not an Italian garden but a Colonial one, designed from a garden made in America about 1760.

Having longed for the sound of falling water among the flowers, it seemed that now was my opportunity; so a pool, round, twelve feet in diameter and three feet deep, was planned for the center of the garden. First the place was excavated and the water pipe and connections with shut-off valve and back drainage put in place; then a wall of stone about eighteen inches thick was laid up in cement, the bottom concreted and the overflow pipe laid to a loosely stoned-up blind cistern made below the level of the bottom; this also served to drain out the pool in winter, the water soaking away through the loose stones into the earth.

The pool finished, the surface of the entire garden was covered with a thick layer of manure, on which was spread about three inches of muck taken from the bottom of a pond that was scraped for the purpose. Lime also and sand were added to mellow the stiff soil. The ground was then thoroughly ploughed, harrowed several

times, spaded and carefully raked. Then with stakes and garden cord the beds were marked out, and again spaded and thoroughly prepared, the whole garden again raked, and the place was at last ready for planting. The pool was begun in early April, but various delays made it the end of May before the garden was finally laid out. The beds were surrounded with Box-edging and many pyramidal evergreens planted.

On June the fifth, the space between the beds was sown with grass seed, an unheard-of date, and as it was too late to think of Lilies for that year, the beds were sown the following day with Asters.

For seven weeks there had been no rain, and, worse still, no wind, and the wind-mill did not pump and the great reservoir supplying the gardens became dangerously low. Early in June I sailed away for Europe in a sad state of mind, begging the men to cart the water if necessary to keep the Box and evergreens alive.

Scarcely did I dare all Summer to think of this garden, and no mention of it was made in any letters received, so that upon our return the middle of September I went to look at it, expecting to see a bare expanse. broken by dead evergreens and brown Boxedging; but the rains had begun the very day we sailed, and the Summer had been cool with frequent rains.

It was just sunset when we reached home that September day, and as I stood on the marble steps, looking down upon what my imagination had portrayed as a dead garden, it seemed as if a miracle had been wrought. The evergreens were green and flourishing, the Box-edging was covered with tender shoots of new growth, the grass of the paths was thick and free from weeds and the beds were filled with blooming Asters, of which there were certainly hundreds in each bed, and although three colors had been used, white, palest pink, and faint blue, each bed contained but one variety.



In the pool the Nelumbium speciosum spreadits great blue-green leaves and two of its pink lilies with golden hearts rose on tall stems above the water. The pale colors with the fresh green setting seemed in the soft sunset-light almost unreal after the sad expectation that had so long filled my mind. Any garden lover will sympathize and understand my great delight.

In October, when frost had killed the Asters, the beds were finally prepared for the Lilies and Iris which they were then to receive. Over each bed was spread a layer each, of old manure, leaf-mould, bone meal, wood ashes, phosphate, and a sprinkling of air-slaked lime, the beds were then spaded and re-spaded so as to mix the new constituents thoroughly with the soil already there, and then came planting time.

But for a moment let me digress and again say a word upon the preparation of the soil, for in this lies the great secret of success in gardening. Make it deep and

rich and light, giving to the plants the food they require, and, with weekly cultivation and an occasional soaking to the roots if the weather be dry, you cannot fail to have a successful garden.

People continually ask me, "What is the use of making the beds so deep?" and "Why not put the enrichment on the top of the ground?" If you make a garden with beds but a foot in depth, the plants may struggle along for a year, but look at them the second year and see their stunted condition and poor bloom, and in comparing such a garden with one properly made, the answer is found. If there is a foot of good rich soil below the roots of the plants and all the rest of the earth is equally good, the plants are enabled to resist a drought that would otherwise cause them to cease blossoming, and in ordinary weather to reward the gardener with a wealth of bloom. Good garden soil, with some sand to lighten it if too heavy, and plenty of old stable manure are all that

need be used for the garden. But for a small garden a bag each of bone meal and phosphate, with some wood ashes occasionally used sparingly, will help the plants along surprisingly. Anyone can make leafmould, which is a valuable addition, by saving the rakings of the Autumn leaves and turning them occasionally until the following Autumn, when they may be dug into the beds. I do not intend to touch the soil of my Lily and Iris garden for at least four, and possibly five, years, beyond giving it every year a mulch of fine manure or leaf-mould when the plants are well up in the Spring.

All Lilies will flourish in rich loam to which a good proportion of sand has been supplied, and once planted, they should not be removed as long as they are doing well.

But if the leaves fall from the stalks and the bulb seems unhealthy, it should be carefully dug up, any part of the bulb found in a bad condition removed, the bulb dried

with a soft cloth and shaken in a paper bag containing powdered sulphur, and replanted immediately. Miss Jekyll recommends this use of sulphur and I have tried it with good results.

It is always a problem how to arrange a garden so that it may be flowering from May until frost, and here were seven large beds to be filled with Lilies and Iris only, and yet kept blooming throughout the season. Of Iris Germanica there were pure white, pale yellow with violet markings, yellow and brown, and various shades of purple and blue; the lovely "Madam Cherau," white with a frilled edge of light blue; many varieties of Japanese white ones predominating, however; Florentine Iris and the English variety Mont Blanc, both of these also white; Siberian Iris, white veined with yellow, and also violet ones; Spanish Iris, growing tall and stately and bearing flowers of wonderful coloring. The foliage of the Spanish Iris

Vase of "Brazilian Lilies"

June eleventh

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is so like the wild onion that I was filled with alarm when I saw the beds in the following April and immediately dug up a bulb to satisfy myself that a crop of onions had not appeared by magic; and, last of all, Chinese Iris, but this did not bloom, although flourishing and green, with foliage quite similar to the Germanica.

The different varieties were laid out on the floor of the tool room, divided into seven parts, and then planted in the seven beds, some of which were larger than others.

Of Lilies there were Auratum, Speciosum Album and Speciosum Rubrum, Longiflorum, Brownii, Batemanni, Krameri, Leichlinii, Rubellum, Chalcedonicum, Excelsum, Superbum, Wallacei, Canadense, and Hemerocallis, the yellow Day Lily, in all eight hundred Lilies and five hundred Iris.

The Lilies were divided into seven parts like the Iris, and each bulb was set in sand, a foot in depth, and the small varieties from four to six inches deep. Some were planted

in clumps of one or two dozen of a kind, but the rarer and more expensive varieties had only from four to six in a group.

The names of the Lilies somewhat phased the men. I asked one the name of the bulbs on a large package he had just laid down. After a moment's study, he replies, "Oh, they're the Long-i-fellows."

The last of November the beds had a heavy cover of coarse manure. I was afraid of stable litter or leaves, for fear that field mice might burrow in and eat the bulbs. Then came the terrible winter with a degree of cold which that wise person "the oldest inhabitant" described as unknown in his lifetime, and with it the fears that little in the new garden would survive. But the kindly snow spread over all a warm white blanket, which remained from December until March. The garden was uncovered the last of March and by mid-April the beds were green with the shoots of Iris and the bronze-green of the

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stout Auratum Lilies, and every sunny day new plants appeared to see what the world was like.

A lady sent me some bulbs which she called "Brazilian Lilies." These bulbs were planted the end of April among the other Lilies. They came up shortly and grew rapidly, beginning to bloom about the end of May and continuing for three weeks. The flowers are quite different from any I have ever seen, the heart of the Lily being pale green shading to yellow, with yellow anthers, and each blossom has five outside petals with fringed edges. The bulb also is unlike other bulbs, being of a consistency between a Bermuda onion and a beet. They are tender, requiring to be stored like Gladioli during the Winter. After blossoming, the plant makes a beautiful foliage that in itself is most ornamental. I wish I knew where these bulbs might be procured, as they are the greatest addition to the Lily garden.

Tiger Lilies are not grown in this garden,

but flourish and increase on the edges of shrubberies and along a stone wall, which latter place seems to be their natural habitat.

The lovely Candidum, too, has no place in this garden. It does not like our soil or my treatment, and after buying hundreds with scant success I have abandoned their culture.

The German Iris began to bloom on May 20th and continued for three weeks. The Florentine and Siberian Iris both began to blossom on May 25th and shortly after these came the English Mont Blanc. By June 10th the Spanish Iris unfolded its first blossom, dark brown with a tinge of purple and a dull gold heart, and one day the third week in June the first Japanese Iris, white with a golden ray through the center, appeared to bid me good morning as I walked through the garden; I cut the last of these Japanese Iris the 3rd of August.

The fragrant yellow Day Lily, Hemerocallis florham, was the first Lily to open its petals in the new garden, about the 25th of • • • . •

Spanish Iris June eleventh

May, and bloomed freely for about two weeks. Next to begin blooming after the stranger from Brazil were the lilies Krameri and Rubellum, which appeared about June 15th. They are quite alike in form, foliage and color; the latter a soft pink, like the lining of the conch shells we have seen on mantles in farm houses, treasured reminders of the distant sea. Next came the Auratums, on July 4th, surprisingly early, for elsewhere on the place they did not appear before July 20th. This, however, gave us the Auratums for nearly two months, as the last one was cut about September 1st.

At the same time Canadense, a native Lily, began to flower and was disappointing, as it bore less freely than those growing wild in the meadows of the farm. The wild ones, however, grew on ground that could more strictly be called wet rather than damp. The Canadense has two varieties, flavum yellow and rubrum red. Each bulb bore from three to five lilies.

While the Auratums in the lily garden were in their prime, the Longislorums unfolded their white trumpets and were beautiful for three weeks, and before these passed away the Lily Brownii appeared, growing on stems about three feet in height, with one or two trumpet-shaped flowers, in form like the Longislorum. These lilies are white on the inside, the outside shaded with brown and purple.

They were followed the third week in July by the Chalcedonicum (the scarlet Turk's Cap), a lily of the Martagon type. These lilies grow in a small cluster at the top of stems about four feet high. They are not large, only three inches across. At the same time the Japanese Lily, Wallacei, began to flower. It is apricot in color, spotted with brown and very large, and has generally but two lilies on a stalk; the stalks are not over three feet in height.

The Lily Batemanni bloomed first on July 25th; it has flowers of a warm shade of

apricot without spots, growing generally in groups of three blossoms, on stems about four feet tall.

Lilium Leichtlinii, a Japanese Lily, also bloomed during the first ten days of August. I found it very beautiful and delicate, of a pale yellow color, with purple markings on the inside. The stems seemed frail, and although one or two bore two lilies, there was generally but one on a stalk, and I fear that this Lily will not bear another year.

Superbums bloomed all through August, and the petals of the last one fell the very end of September. The stalks are about five feet in height and each stalk bears certainly twenty lilies. I am told that this variety, when well established, increases in quantity of bloom until there are often thirty flowers and the stalks eight feet high. The flowers are crimson-orange and remind one of the Tiger Lily.

The middle of August, while the stately Auratums still lingered in the Lily garden,

the lilies Rubrum, and Melpomene which is quite like Rubrum but more brilliant in color, and the beautiful wax-like *Lilium* album appeared; and, of these, the ones protected from the frost did not cease blooming until the second week in October.

One other Lily, Gigantium, said to grow six feet high, was planted, but not in the garden. It required "a cool woodland," according to Miss Jekyll, so a corner was found under tall trees where Rhododendrons formed a background; a large place was dug out and filled with specially prepared soil, and, with a petition to the goddess Flora, the bulb was carefully planted, only one, because they are expensive—three dollars apiece—and this was an experiment. Three weeks, a month, five weeks, went by and no sign from the bulb. Impatience could no longer be restrained, and with care it was dug up. Alas! the bulb was nearly gone. The soil or climate or something was



A clump of white Japanese Iris July third

unpropitious, and thus I was unable to have the handsomest of all the lilies.

By the first of June every inch of space in the beds was filled with Asters, Gladioli or tuberous-rooted Begonias. Each bed had one of these varieties of flowers.

These Begonias, which are a most beautiful flower of waxy texture, quite four inches across, were started in hot-beds the first of March, began to blossom in early July and continued until killed by hard frost. The bulbs may also be planted in the open ground in May as soon as danger from frost is over. Plant with the hollow end of the bulb up, and cover with two inches of earth; they will begin to blossom early in August. Both the foliage and the flowers are beautiful, and they are so easy of cultivation, that no one will regret having them. They prefer a partial shade, but when given a mulch they do perfectly in full sun. The white are the handsomest; afterwards the pink and scarlet.

In the Autumn the bulbs should be taken up, after the foliage has been destroyed by the frost, carefully dried and stored through the Winter. It is a frequent practice to pack the bulbs in boxes of dry sand, the bulbs not touching each other, and then to store the boxes in some suitable place, but for the last two Winters I have kept them in baskets in an ordinary cellar, side by side with similar baskets of Gladioli, Dahlias, and Cannas, and they have been in perfect condition in the Spring.

The Begonias began to flower early in July, the Asters and Gladioli the middle of August, and all continued to bloom until the frost came.

Other than Lilies and Iris, this one annual and the two summer-flowering bulbs were all that were admitted to this garden. To observe the Iris and Lilies as they came into bloom was most interesting, but of the many varieties of Lilies there are, after all, but few that are entirely satisfactory, and

fewer still that can be counted on to increase. Of the latter there are the Speciosum album and Rubrum, which last thrives best in a partially shaded location, or if given a heavy mulch can be grown in the sun; Canadense, Superbum, the Tigers, Krameri, Rubellum, and the yellow Day Lily. Beautiful ones which we cannot do without and yet which disappear after more or less time, are the Auratums, Longiflorums, and Brownii.

The old-fashioned Funckias, called "Day Lilies" by our grandmothers, require too much space to be admitted to the Lily garden, but are grown in masses elsewhere, and I often wonder whether the clusters of slender white trumpets or the great yellow-green leaves are most beautiful. Funckias, like the Paeonies, should be undisturbed, and for the first two or three years not much should be expected of them; afterwards the number of blossoms will increase every year.

In the pool there were Nelumbium speciosum, the pink Egyptian Lotus, a tender Water Lily. If the season is early they can be planted about May 15th. Fill a flower tub or butter tub, which must first be made perfectly tight, with equal parts of cow manure and garden loam which have been carefully mixed. Contrary to common opinion, it is the soil that nourishes aquatics, not water. Plant the Lily roots nearly at the top of the tub, covering only with about two inches of soil well pressed down. If a bulb or shoot has formed, be careful to allow it to project above the soil. Finally cover the earth with about two inches of sand, which prevents the soil in the tub from discoloring the water. If you have no pool or pond, the Nelumbium or the English Nymphaes or our native Pond Lilies can readily be grown in a kerosene barrel sawed in half and sunk in the ground to the rim, in some effective place where it will have full sun, generally in

Nelumbium Speciosum September twentieth

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LILIES AND IRIS

front of a shrubbery or with a background of low evergreens. Half fill this with soil, plant the Lily, not forgetting the sand, fill up with water and from time to time replenish the water to replace that which has evaporated.

Water Lilies are beautiful alike in flower and leaf. The delicate petals of the pink Nelumbium with its great golden calyx, the flower when extended being quite twelve inches across, and the velvety leaves often measuring twenty-two inches across, the first to appear resting on the water and later ones rising on straight stems two feet or more above it, make this plant an object of unusual beauty. Nothing can be more interesting than to watch its daily growth.

Every few feet around the pool, just back of the wall, English Ivy is planted, which as it grows is fastened down with hairpins, those most valuable implements of femininity, and will, it is hoped, in time surround the edge of the pool so that the water will

accompaniment to the thoughts that flit through the mind even as the shadows flit across the hills, or the changing clouds are reflected in the water. At night when the tall white Lilies gleam through the darkness and the air is heavy with their perfume, and moon and stars are mirrored in the clear pool, it is the time and the place for "touches of sweet harmony," and when a pure voice is heard singing "and the night for love was given, Dearest, come to me," from Schubert's serenade, a final enchantment descends upon the spot.

When staying at Oxford and wandering through those grand old gardens it has been easy to understand, how their calm beauty and charm have inspired the thoughts of the men who have produced so much that is best in English literature and poetry. The shaded alley by the Cherwell, the great purple beeches, the shadows fleeting across the grass, the antiquity of the place and all that the great university has stood for in its

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LILIES AND IRIS

centuries of existence, these surroundings and the life in the gardens must, if there is any poetry or spirit of imagination in him, stimulate the Oxford man to valuable literary work.

AUTUMN WORK IN THE FLOWER GARDEN

CHAPTER VII

AUTUMN WORK IN THE FLOWER GARDEN.

It is difficult for beginners in the gentle art of gardening to realize how much time and patience are required to make success. It is equally difficult at first for them to understand that flowers to bloom in late Summer and early Autumn must be planted, if not the year before, certainly in very early Spring, and that the Spring garden must be prepared in the Fall.

There is no busier time in the garden than September and October, and no more delightful season for the gardener's work. After the first two weeks of September excessive heat does not return, and at any hour of the day it is a delight to be out-of-doors.

Everthing accomplished in these Autumn months is so much gained for the following

Spring. First of all, there are the seeds to be gathered—for why incur the expense of buying when those raised in your own garden may be just as fine and much fresher than those from the seed stores? Small cardboard or tin boxes, each with a pasted label with the name of the seed it contains, are the best in which to store the seeds.

Gather the seeds from the plants into a cigar box, and after carefully removing all the husks and dead particles, transfer them to the labeled boxes. Only enough of the annuals should be allowed to form seed pods to supply the quantity needed for sowing. Among the seeds easiest to gather, and surest to grow the following spring are Asters, Balsams, Centaureas (Cornflowers), Cosmos, Calendulas, Poppies of all kinds, Marigolds, Nasturtiums, Sunflowers, Zinnias, Hollyhocks, Sweet Williams, Foxgloves, and Larkspurs. Sweet Peas should not be allowed to form seed pods or they will cease to blossom.

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Care must be taken to store the seeds through the Winter in a perfectly dry place. In case they are left in an unoccupied country house they should be protected from mice, as all flower seeds seem to be articles of delicacy much appreciated by these creatures. The flower seeds can be gathered all through the months of September and October until the plants are killed by frost. When gathering them do not omit the little black bulbils found on the stems of the Tiger Lilies. These should be planted as soon as dried, in some sunny place marked with sticks, which are not to be removed during the Winter, to insure that the ground where they have been planted will not be disturbed in the Spring.

Pansy seeds may be sown the first week in September in rows, in rich soil that has been made very fine. Water them daily, and by the time the ground freezes they will be nice little plants, able to endure the Winter. Do not transplant them this first

Autumn, but allow them to remain until the Spring in the rows where they have grown. They will do better next year if undisturbed. Pansies, however, that were sown in July may be transplanted in October to their final places. If they have been grown for flowering next year, all blossoms should be cut as soon as they appear. In this way the plants become larger and stronger. In localities where the Winters are severe a light covering of leaves or stable litter will help the plants to make an earlier start in the Spring.

If new beds and borders are to be made in your garden, the first days of September are not too early to begin. When these have been carefully staked out, the ground should be dug out two feet in depth and all stones removed. Put first a foot of old manure in the bottom of the bed, and then proceed to fill up with alternate layers, of about four inches each, of top soil (that taken from the first foot of soil taken out)

and manure. If the top soil is of a clayey nature, it should be put in a pile and mixed with one-fourth sand to lighten it before returning to the bed. This should be filled very full, as with the disintegration of the manure the bed will sink.

The owner of the garden may have noticed during the Summer that plants in certain beds or borders have not done well. The earth has seemed hard and dry, and the plants have not been luxuriant either in foliage or bloom. The soil is either poor or exhausted, or it has not been properly prepared. These beds should then be re-made by lifting the plants, setting them, after watering well, in a shady place and proceeding exactly as if making new beds. It is best to take up at one time only so much space as can be entirely finished and the plants reset in one day. Ground thus prepared will raise splendid plants for several years if given a top dressing of fine manure in the Spring after the plants have started.

About the twentieth of September, in the Middle States, one may begin to expect frost. The first frost often comes when the garden is glorious with bloom and color, and will make sad havoc in a single night. It frequently happens that after one such frost there will not be another for several weeks. Be on the watch, therefore, and protect your plants if possible.

The Cannas, Salvias, and Dahlias are in the height of their glory at this time. When frost is expected, drive a stake into the center of the Canna and Salvia beds, and several more stakes around the edges. Let them be several inches higher than the plants, then cover with carriage covers or pieces of burlap or old sheets. If there are September-flowering Chrysanthemums just coming into blossom, drive a few stakes among them and cover with newspapers. Newspapers spread over the tops of Dahlias will also protect them from the early frost. Half an hour spent after sunset in covering the

plants will bring great reward in prolonging their lives for possibly two weeks longer.

If seedling Foxgloves, Canterbury Bells, Columbines and Sweet Williams have been raised in your garden, they should be transplanted to the beds about the twentieth of September, so that they may become well rooted before the cold weather.

Sweet Williams make a fine effect when planted in large masses, and are very satisfactory grown as an edging. Columbines also make a good edging for a border filled with perennials and annuals. If the plants are strong and healthy, and are set out about four inches apart, they will grow quite together the following Spring.

Foxgloves, which grow from three to four feet high, should be planted rather far back in the borders. They are most effective planted in clumps of from six to a dozen plants, set about eight inches apart, and alternating with clumps of Phloxes.

Canterbury Bells grow about two feet 201

high, and with these plants also the best effect is to be obtained when they are grown in clumps of six or eight. Strong plants in rich soil will be quite a foot across when blooming. If planted a foot apart, they will grow together, and, with the Foxgloves, produce the most beautiful effect of the entire Summer. In case none of these plants have been raised, and no more fortunate kindly neighbor, with the free-masonry that exists among gardeners, can give them to you, they should be bought and planted at once, if they are to blossom in next Summer's garden.

Perennial Larkspurs, too, should now be finally transplanted. These are hardy and long-lived plants, growing from four to six feet in height, often higher. Plant six or eight together, about two feet apart. When the Larkspurs are finally cut down, a small quantity of fine coal ashes should be sifted over the tops of the plants, enough to cover the crown about half an inch.

Autumn planting should be done sufficiently early for the plants to become well rooted before the ground freezes, and a good covering of leaves or litter must then be given them late in the fall.

Japanese Anemones, tender Roses, Mont Brutus, Tritomas, and Altheas are among the few plants that should be set out in the Spring, that they may be thoroughly established before the Winter. But with the great majority of hardy flowers early Autumn is the best time to plant. The result in the following year will be better than if the plants are disturbed in the Springtime when growth is beginning.

If Lilies and spring-flowering bulbs are to be planted, they should be ordered early in September for October delivery. Lily bulbs are generally delivered about the 20th of October, with the exception of *Lilium candidum* (the well-known Madonna Lily), which makes an Autumn growth and should be planted not later than the 10th of Sep-

tember. Lilium candidum requires full sun. It should be left undisturbed for four or five years, when the clumps may be separated and replanted. L. speciosum rubrum should be grown in partial shade. Other Lilies will grow in the sun.

Auratum Lilies do best if planted a foot deep and about eight inches apart, and are most effective when growing in masses. Other lilies should be planted from six to eight inches deep and the same distance apart. When planting Lilies have a box of sand and set each bulb in a handful of this, for it is important that no manure should be allowed to come in contact with the Lily bulb, as it causes decay.

No garden, however tiny, should be without a few of the spring-flowering bulbs. They are not expensive. Indeed, in reading the catalogues one is surprised to find how many can be had for a small sum. No special place need be prepared for them; they can be planted anywhere among the

Pale violet Japanese Iris, veined with purple July third

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other plants. Single and double Tulips, Daffodils, Emperor and Von Sion Narcissus, Narcissus poeticus, and single and double Hyacinths, Lily-of-the-Valley, and the gay little Crocuses and delicate Snowdrops, once grown, will become the dearest friends. The middle of October is a good time to plant them.

When the annuals have been killed by frost, the plants must all be pulled up, taken away to some spot far from trees or buildings and burned. It is a bad practice to put these dead plants on the compost heap to be returned to the garden later as fertilizer. For if the plants have been attacked by any insects, their eggs may, and usually do, survive the winter cold, and another year the worm or insect coming from them will work serious harm to the young plants. The same is true of vegetable parasites, such as rusts, and other fungi whose spores survive the winter.

If your garden possesses Phlox or large 205

clumps of Iris, either German or Japanese, or Rudbeckias (Golden Glow), October is the time to divide their roots and set them out anew. Take, for instance, a large plant of Phlox, lift it from the ground with a spade and with the spade cut the root into pieces, leaving perhaps four or five stalks on each piece; cut off the tops and then plant each piece separately. In setting them out, loosen the earth of the bed well with the spade, make a hole larger than the roots will require, put a little manure into the hole and cover lightly with earth; then set the plant, pack the earth firmly around the roots and water thoroughly. This is a good rule to follow in all planting. Next Summer the heads of the blossoms will be larger than before and the plants will have renewed vigor.

It is absolutely necessary that Phloxes should be divided every three or four years to keep them in fine condition. In case one has a single large plant of a very fine qual-

ity, it is worth the trouble to take half of it, separate the roots so that but one stalk is left to each section, then plant these, as directed, somewhere in rows. In two years there will be a number of splendid plants.

The Rudbeckia (Golden Glow) is another perennial that can be divided almost indefinitely. If planted at the back of a border, alternating in clumps with Hollyhocks, it is very effective, but if not divided, certainly every other year, it will overrun the border.

Large plants of Paeonies may be separated, and if only a small portion of the root be taken it will not be noticed in the size of the parent plant the next year. But it is a very generous gardener who will divide her Paeony roots to give to a friend. It causes a severe wrench to your feelings to do this even for yourself, and is not to be recommended except in the case of some rare variety of which you wish to increase the number of plants. In late October the tops of the Paeony plants should be cut off,

and fine old manure carefully stirred into the earth around them with a trowel. The Paeony starts so early in the Spring, that if fertilizing be left till that time, there is danger of breaking the tender shoots. But as a rule, top dressing of plants and shrubs with manure for the purpose of fertilizing should be deferred until Spring.

Horticulturists have found that one-half the quantity of fertilizer, when used in the Spring, produces twice the result as when used in the Fall. The Winter rain and snow may carry the enrichment below the roots, while in the Spring every particle goes directly to help the new life just starting.

Japanese Iris, while not increasing very rapidly, is benefited by separation when the clumps have become large. The roots of this plant are very long and the holes to receive them when replanted must be made sufficiently deep so that they are not doubled up. German Iris may be separated in the same way and is benefited by it. The roots

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of these two plants can be cut into pieces about the size of a man's fist and planted about a foot apart in clumps of six or eight together.

As soon as the tops of the Dahlias, Cannas, and Gladioli have been killed by the frost, their roots should be lifted, the tops cut off and the roots well dried. This is best done by placing them out-of-doors in a sunny place for three days, taking them in when the sun is low and putting them out about ten o'clock in the morning. When dried they may be stored until next Spring in baskets, boxes or barrels in a cool place in any cellar where they will not freeze. Dahlias increase tremendously. instance, two dozen roots purchased one Spring increased in five Summers to six barrelfuls. Cannas also increase, in that the roots become so large that the following Spring they may be separated and there will be enough to plant nearly twice the space of the year before.

If the Tuberous-rooted Begonia is grown, it can be taken up and treated in the same way.

The last work of all in the garden, but not the least important, must be postponed until the end of November. This consists in giving the flower garden, in all localities where the Winters are severe, a covering of leaves and stable-litter. The plants will start earlier in the Spring and be better and stronger for this protection. They should not be covered, however, until the cold weather really sets in, and care must be taken to uncover the beds early, about the 25th of March.

Often during the frozen Winter the gardener's thoughts will dwell upon his sleeping plants, and when remembering the Lily bulbs placed in the earth in the Autumn he can but think how in the Spring they will rise into a new life, crowned with loveliest bloom.

THE FLOWER GARDEN IN THE SPRING

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CHAPTER VIII

THE FLOWER GARDEN IN THE SPRING

March the first mild day that comes in March the thoughts of all garden lovers, who spend the Winter months in the round of city life, fly away to their gardens. They know that within the brown earth, soon to become soft and warm, the hearts of the plants are beginning to stir, and that watching eyes will see, with each day's sunshine, new tender shoots of green appear. Let us then consider first the order of work to be followed in an old garden, or in one that was laid out and planted the year before.

Wherever gardens were covered in late Autumn with a mulch this should be removed in the Spring, the very day that the frost entirely leaves the ground, otherwise the

plants under it may start unnaturally and their early growth be injured by late Spring frosts. When the beds are uncovered, the red shoots of the Paeonies, and the green ones of Tulips, Daffodils, Phlox, and Hollyhocks, will have already put up their heads. All gardeners know the thrill of delight with which this first appearance of life among the flowers is welcomed.

After the beds have been uncovered the whole place must be carefully raked, and all the beds, borders and paths edged, by cutting with a sharp spade or a grass edging knife. Wherever the grass seemed thin the season before, new seed should be sown and thoroughly rolled in while the ground is soft. In about two weeks this new grass should appear; and if some cotton seed meal, which is a most excellent fertilizer for grass, be sown thinly as soon as it is well up, and followed by some wood-ashes along in May, there should be a fine sod in June. If it is a dry Spring, the newly sown grass



must be thoroughly watered at least every other day. The various mixtures of lawn grass seed offered by the seedsmen are generally good, but I have found equal portions each to the bushel of Rhode Island bent, red-top, and Kentucky blue grass to give the best results.

Sweet Peas should be sown as soon as the ground can be worked.

During April and May every hour of every day is filled with work, for the success of the garden in Summer and Autumn depends upon what has been done in these early months.

The climbing Roses should now be carefully gone over, all the dead wood cut out and the loose branches fastened in place. Honeysuckle, Trumpet Creeper, and indeed all the hardy vines should be looked after in the same way. The hybrid-perpetual and other Roses that were not trimmed back in the Autumn should now be pruned, all dead wood and some of the larger branches cut

away, and the tops of the hybrid-perpetuals pruned back so that the bushes are from two to three feet in height. The Everblooming Roses can be pruned to a foot in height.

As soon as the Tulips, Hyacinths, and Daffodils are about three inches high, the earth should be gently stirred around them with a small trowel. But beyond this, beds planted with perennials should not be touched in the Spring until the plants have shown themselves above ground, as much injury might be done. When the perennials are well up, some fine, well-rotted manure should be carefully dug in around them with a trowel.

The hardy Chrysanthemums start very early in the Spring, and the best time to transplant them is when the shoots are about three inches high. Lift the old plant carefully, and with the spade divide it into sections having about four shoots to each. The beds to receive them should be in a

sunny place, along a stone wall or against a building or in front of a shrubbery, where there is some protection from the frosts of early Autumn.

Trees and shrubs should be planted as soon as the ground can be worked. Magnolias of all varieties, hybrid Rhododendrons, mountain Laurel, and Azalea mollis (which does not thrive in cold localities) should only be planted in the Spring. Rhododendrons and Azalea mollis do best in a partly shady location, and should be well mulched and not allowed to suffer from drought.

Hedges of all varieties can be set out in early April. Where the Winters are severe, privet is often winter-killed. This sometimes occurs after several years of growth and is a great loss. It is not so much a continual low temperature which kills, as the alternate freezing and thawing of our variable climate. Hemlock spruce, Siberian arbor vitae and honey-locust all make hardy and satisfactory hedges. After a hedge has

been planted, the earth over the roots should receive a top dressing of manure.

Unless your gardener thoroughly understands his business, and is also painstaking, you should give personal supervision to the setting out of trees and shrubs.

Shrubs of all kinds require to be set out as carefully as trees. They make the best effect if planted on the edge of the lawn, along fences, as screens about buildings, or in masses in odd corners. They should be well pruned when set out, excepting Rhododendrons, Laurel, Azaleas, and Magnolias, which should never be pruned. After the first year, all trimming must be done immediately after the shrub has ceased blossoming, as the flowers for one year grow on the new wood of the year before.

Driving in Central Park early last spring, I saw men cutting ruthlessly at the Syringas, Lilacs, Deutzias, and other flowering shrubs. I could have wept, and longed to cry "Stop!" The shrubs certainly needed



pruning, but it was a short-sighted policy to lose a season's flowers by premature pruning, when by waiting three months the work could be done equally well and with better results.

Standard Box and Box-edging should always be set out in early Spring, as they need a season's growth to enable them to endure the first Winter. In case the Box-edging set out the year before has an uneven look, it can be clipped lightly, early in April before growth begins.

English Ivy is an excellent susbtitute for Box-edging as a border for paths or beds. In Paris it is universally grown for this purpose, as all will remember who have peeped through the tall iron fences or an open gateway into the trim court yards and gardens. The plants of Ivy are set about every three feet, and half of the shoots trained each way. The plants must be carefully pegged down, trimmed and kept free from dead leaves. By the end of the sec-

ond Summer strong plants that have been so planted and well cared for should form a border from eight inches to a foot in width. Where the Winters are too severe for the English Ivy to be grown against buildings and about the trunks of trees, it will survive when grown as a border flat upon the ground, where it can be covered in November with leaves or straw and evergreen branches.

Early in April some fine old manure, to which a small quantity of bone-meal and wood-ashes, about a pailful of each to a wheelbarrow of manure, have been added, should be dug into the ground about the Roses, shrubs, and vines; the reward in increase of growth and quantity of flowers will be great.

The spray machine must be looked over and put in order in earliest Spring, and the various insecticides provided in advance.

Hollyhocks must be sprayed with Bordeaux mixture as soon as they are well up,

which should be repeated about the 10th of May and again the 1st of June, to prevent the rust, that unsightly disease which covers the leaves first with red spots and then causes them to shrivel and fall, leaving a bare stalk. This year I have taken the precaution to spray the seedling Hollyhocks three times during the Summer, so that I hope to get ahead of the rust entirely.

The Roses, too, should be sprayed early in April with kerosene emulsion, and about the 1st of May with slugshot, and again, just before the buds form, with kerosene, as prevention against the creatures that attack them. Gardeners generally say, that this is unnecessary and wait until the pests appear, but experience has taught me that in the end it is less labor to keep ahead of the enemy.

The leaves of Monkshood have a tendency to turn black from some microbian disease, which will be averted if the plants are

sprayed in April, May and June with Bordeaux mixture.

A spray of tobacco water will kill the aphids that sometimes appear on Chrysanthemums, and also the red ones that occasionally infest the stems of Rudbeckias.

Spraying with insecticides becomes more and more necessary for successful growing of fruit and flowers. Many plant diseases are even more infectious and contagious than those of humanity, and it is often too late to begin spraying when the trouble is perceived. Nothing spreads more rapidly than mildew and rust when once they make their appearance. And while Bordeaux mixture, the best specific for these disfiguring afflictions, does not add to the beauty of the plants sprayed with it, still the spraying must be done, if the garden, once attacked with these troubles is to be preserved in a healthy condition.

Climbing Roses that have shown signs of mildew the previous Summer, should also be

sprayed in March, again when the leaves appear, and a third time after the roses have fallen. The moment that worms appear upon the currant and gooseberry bushes they must be sprayed with hellebore, and one application is generally sufficient.

The parasitic diseases appear in orchard and garden without warning and work great havoc in a short time. There is no doubt but that the spores are spread by the winds or carried by the birds, and one infected farm or garden spreads the trouble to another. As yet our place has been free from the dreaded San José scale, although neighboring farms have suffered from it. I trust that the future will see us still immune.

A friend on a neighboring farm, a young man who attends to everything in the most modern and scientific manner, is a great believer in the efficiency of spraying, has a fine equipment for the purpose, and sees that it is done at the proper times. A member of his family recently said to me:

"T— has sprayed everything on the farm that can be sprayed, and I fear he will now begin upon the family."

While there are many advantages in Autumn planting, better results being obtained when plants need not be disturbed in the Spring, and because all garden work accomplished in the Fall is a great relief in the busy Spring days, still nearly everything can be planted in the Spring if necessary.

Most perennials can be planted in Spring. A few, however, such as Bleeding-Heart, Crown-Imperial, Paeonies, and Valerian, start so early that they should always be set out in the Fall. On the other hand, Japanese Anemones, Tritomas, and Montbretias are plants that must always be set out in the Spring, as they must be well established before the first Winter. Hybrid-perpetual and climbing roses can be set out in the Spring, if planted very early before growth begins, and the more tender varieties must always be set out in the Spring.

Funkias August twenty-fourth



Where the climate is like that of New York, perennials can be planted safely about the 15th of April, and the earlier it is done, the less chance there is that they will receive a setback. Success in planting depends much upon attention to details. Care must always be taken, to properly prepare the ground, to give the roots plenty of room, to water well at first and not to allow the poor things to suffer for want of food and moisture.

Along in May if a mulch of grass-clippings, leaves from the Autumn before, or old stable manure, be spread over the Rosebeds, tuberous ooted Begonias and Lilies, it will help them greatly through the summer.

Of the great number of hardy perennials the following are a few of those easiest grown and most satisfactory: Aconitum napellus (Monkshood), Agrostemma, Anemone Japonica, Aquilegia (Columbine), Bocconia, Boltonia, Coreopsis grandiflora, Delphiniums, Dianthus, Dicentra spectabilis (Bleeding-

Heart), Dictamnus, Funkias, Helianthus multiflorus plenus (double hardy Sunflower), Hemerocallis (Day Lily), Hibiscus, Hollyhocks, Iris, Lobelia (Cardinal flower), Oriental Poppy, Penstemon, Phlox, Platycodon Mariesi, Scabiosi Caucasia, Spireas, Tritomas, Veronica, Yuccas. The seed bed must be prepared as soon as the ground can be worked, and the seeds of perennials sown about April 10th. The earth for this bed should be made very light and fine, and from the time the seeds are sown until they are transplanted to their final home the little seedlings must never be allowed to dry out.

Of the foregoing, the following will be found easy to raise from seed: Columbines, Hollyhocks, Sweet William, Platycodon Mariesi, Delphiniums, Coreopsis, Hibiscus, Rockets, and Oriental Poppies. Also of the biennials, Foxglove and Campanula (Canterbury Bells). But it is better at first for the amateur to buy the plants of the other varieties.

Annuals may be sown from April 20th to May 10th, according to the season. Asters for late blooming may be sown up to the end of May.

In planting, tall-growing things should be set at the back of the bed or border. with the low-growing ones in front. Catalogues usually give the height, period of blooming and color of flowers, so that, with a little study, even the beginner in gardening cannot go astray. The flower gardener must remember that fine effects can only be produced by masses of color, and that a number of each variety of plants should always be set together. Never put one or two lone plants by themselves, with the rest of their family scattered about singly or in couples. Speaking of large clumps reminds me of a plot eighteen feet by forty, entirely filled with tall-growing perennial Larkspur, which is a beautiful sight when blossoming, and with fifty Japanese Anemone Whirlwind, grown in a mass, which surpasses in

beauty all other sights in the garden when they are blooming.

The making of an entirely new garden is a most delightful experience, but, like the marriage estate, is something not to be undertaken "lightly or unadvisedly." The amateur, who is a beginner in flower gardening, would scarcely be successful in planning, making, and planting a new garden, particularly a formal garden, without experienced advice. After selecting the location and determining the general conditions and character of the new garden, the place should first be carefully measured, and plotted accurately, almost to the inch. Then make a plan for the whole in detail, with the shape of every bed. After this has been done, and the gardener is convinced that as far as can be foreseen it is the most satisfactory arrangement for the ground, and will give her the garden of her dreams, let the actual work begin and let it not be delayed after the frost has left the ground.

Rocks (if they are in the wrong place) should be blasted out and stones and stumps removed. The sod should be turned up with a plow, and then carted off and piled in some out-of-the-way place to decompose. It will then be ready to be returned to the garden and made useful as a valuable fertilizer, or in planting trees, shrubs and Rhododendrons, for which it is especially valuable if chopped up and put in the bottom of the hole made to receive the roots. The ground should then be carefully levelled, thickly covered with manure, plowed deeply and harrowed thoroughly three or four times; if the garden is not too large, it should be spaded over as well. It is then in condition for laying out the beds and walks. For this work there should be a large quantity of garden cord, a long measuring tape, many pointed stakes, and a wooden mallet. The center of the plot is first marked with a stake, and from this point the other measurements are taken off

according to the plan, the outlines of each bed being marked by stakes driven in about every three feet, with cord stretched along between them. Cord must also be stretched to mark the paths; stakes should then be driven to mark the places for trees, which should be the first thing planted. If it is to be a formal garden, pyramidal-shaped evergreens are the best for the purpose.

In preparing the beds, better flowers will be produced for a longer time if, for a bed ten feet long by four feet wide, some bonemeal, leaf-mould (if any can be found) and wood-ashes—a pailful of each—be added to a wheelbarrow of manure, with a sprinkling of lime, and then thoroughly spaded in. If the soil be heavy, add also enough sand to lighten it. This seems a prescription of many ingredients, but it is worth the trouble.

If the garden is in a locality where Box will grow, although the expense is considerable, it will be a great addition to edge the bed and paths with Box. But great care

must be taken to set the little Box plants perfectly straight. The beds may then be planted with perennials, annuals, and Lilies, according to your taste; but remember always to preserve harmony of color and to secure effect by planting a number of each variety together.

If the paths are to be of grass, the grounds, after being levelled, need only be raked smoothly, the grass seed sown and carefully raked in with an iron rake and the paths rolled.

Grass paths have but two disadvantages. They are impracticable near the house or where they are put to severe usage, as turf is unable to resist the wear of constant walking. They are, also, often damp with dew in the early morning and always wet for a time after a rain, but they will dry quickly if the grass be kept closely cut, and the owner can supply herself with overshoes when she would sally forth upon the wet turf. How many of us must plead guilty

to walking upon the grass borders of graveled paths because the gravel was tiresome or reflected the heat! For those, however, who spend the four Winter months in the country, gravelled walks are a necessity if they are to be used at all.

If they are to be gravelled, they must be dug out a foot or more in depth, filled in first with broken stone, then a layer of coarse gravel and finally the fine gravel, and all well rolled. All this having been done, the gardener has only to keep trespassers from the newly-sown grass, to water his garden in late afternoon and to possess his soul in peace until, when a month has slowly passed, he will find the beds covered with the sturdy green shoots of the new plants, the Box-edging putting forth tender leaves, the grass a velvet carpet, and he can then bid his friends come to see the new garden and picture to them its future beauties, which imagination has already painted upon his mind.

Abies polita, 120. Abies pyramidalis, 120, 125. Acacia, rose, 126. Aconitum napellus, see Monkshood. Ageratum, 144. Agrostema, 136, 145, 225. Ailanthus, 103. Alders, 97. Altheas, 125, 148, 203. American ash, 103, 124. American elm, 106. Anemone, Japanese, 149. Anemone Japonica, 225. Aphids, 66, 222. Apples, 62-65, 77, 80. Apple worm, 64. Aquilegia, see Columbine Arbor vitae, 120, 123, 125. Pyramidalis, 116. Arondo donax, 153. Arrow-head, 153 Artichokes, 23-24. Ash, 103, 110, 124. Asparagus, 22, 24-27, 53, 60. **Asters**, 149, 170, 183. Flowering time, 184. Planting time, 227. Seeds, 196.

Asters—
Use in borders, 144, 145, 146.
White, for beds, 152.
Auratum lilies, 175.
Blooming time, 148, 179, 181.
Planting of, 204.
Shortcomings of, 185.
Austrian pine, 122.
Azaleas, 97, 125, 217, 218.

Balsam, 145, 149, 196. Barberry, 126. Beans, 21, 22, 27-29. Beech tree, 103, 110. Beds— Preparation of, 172. Laying out, 229, 230. Making and renewing, 198-199. Planting, 231. Time for making, 198. Bee balm (red), 153. Bees, mixing of pollen by, 50. Beetles, 37, 50, 102. Beets, 21, 29-30. Begonias, 183, 184, 210, 225.

Berberis Thunbergii, see Barberry. Birch trees, 104, 110, 124. Birds in garden, 188. Bitter sweet, 97, 196. Blackberries, 80, 81. Black knot, 74-75. Black walnut tree, 104. Bleeding-heart, 224, 225. Blooming, time of, see names of plants. Boconia, Cordata, 145, 225. Adapted to wet places, 153. Flowering begins, 148. Height, 131. Suitable on edges of shrubbery, 142. Boltonia, 225. glastifolia (white), 142. Latisquama (pink), 142. Bone meal, 26, 38, 68, 73, 76. Borders— Arrangement of, 227. Color scheme for, 142-147. Time for making, 198. Borers, 69, 72, 76, 102. Box, 117, 118, 121, 123, 166, 170, 219, 230. Brussels sprouts, 30-31. Bulbs for spring flowering, 204, see also names of flowers. Bushes, 69.

Calendula, 148, 149, 196. Camelias, 149. Campanula, see Canterbury Belle. Cannas, 146. Blooming season, 148, 900. Bulbs of, 184. Care of roots, 209. Cantaloupe, 50. Canterbury bells, 132, 134-135. Blooming season, 147. Easily raised from seed, *22*6. Planting of, 201-202. Use in borders, 144, 145. Cape Cod water lily, 153. Cardinal flowers, 146, 153, 226. Carnations, 137, 145. Carolina poplar, 110. Carrots, 22, 31. Catalpa, 76, 104–106, 110. Catalpa Bungii, 105, 106, 118. Caterpillars, 111. Cauliflower, 25, 31-32, 53. Cedars, 114, 120, 125. Celery, 22, 32-35, 53. Cellar for storage, 121. Centaureas, see Corn flowers. Cherries, 65-67, 77, 80, 104. Cherry trees, 104. Chestnut tree, 104. Chicory, 35. Chimney-bell flower, 134-135. Chinese iris, 174. Chives. 52-53. Chokeberry (black), 97.

Chrysanthemum, 57-58. Late-blooming flowers, 149. Protection from frost, 200. Spraying for aphids, 222. Transplanting, 216. Cives, 52-53. Clematis, 118. Paniculata, 126. Wild, 98. Cockscomb, 146, 149. Codlin moth, 64. Cold, effect of, on certain plants, 132, 148. Coleus, 129. Colonial gardens, 167. Color phases of the Garden, 147, 148. Colored borders, 142-147. Colorado blue spruce, 123, 125. Colorado fir, 123, 125. Columbines, 142, 144, 145, 201. Copper beech, 104, 124. Coreopsis, 148. Grandiflora, 225. Corn, 21, 35-37. Corn flowers, 144, 147, 149, **196**. Corn salad, 35. Cosmos, 149, 196. Crap apples, 67. Crocuses, 205. Crown imperial, 224. Cucumbers, 37, 50. Curculio, 66, 71, 72, 74. Currants, 22, 78, 79, 223. Daffodils, 205, 214, 216.

Dahlias, 184, 200, 209. Day lily, 226. Yellow, 175, 178, 185. Deciduous trees, 94, 103. Delphiniums, 225. Doutzias, 118, 218. Gracilis, 125. Dianthus, 225. Dicentra spectabilis, see Bleeding-heart. Dictamnus, 226. Dictam**nus** fraxinella, 137. Dogwood, 104, 110. Dwarf fruit trees, 61. Early American gardens, 167. Egg-plants, 26, 37-38, 53. Elm (American), 106. English gardens, 167. English ivy, 187, 219. Enonymus Radicans (evergreen), 126. Eupatorium, 153. Evening primrose, 141. Evergreens, 111-116. List of, 125. Shearing time, 123. Suitable for lawn, 122-123. Hedge of, 18, 19. Ferns, 153. Fertilizer, when to use, 208. Fir trees, 123. Flower garden— Autumn work in, 195-210. In the Spring, 213-232. See also Garden; names

of flowers.]

Flower and vegetable garden combined, 19, 20. Flowers— Colors of, 136-148, 150, 151, 153, see also names of flowers. Production increased by cutting, 137. Foxgloves, 132. Early blooming flowers, 147. Easily raised from seed, 226. Seeds, 196. Transplanting, 201. Use in borders, 145. Frost, effect of on garden, *2*00, *2*05. Funkias, 185, 226. Fruits, 57-89. Soil and location for, 61. Suitable for small gardens, **80.** Varieties best for planting, 61. [See also names of fruits; Fruit trees.] Fruit garden, 61, 80. [See also names of fruits; Fruit trees; Garden.] Fruit trees— Beauty of, in blossom, 57-**60.** Care of, 76. Grubbing, 64. Planting, 62. Varieties to choose, 76.

Fruit trees-See also names of fruit trees. Fungus diseases, 64, 73. Gaillardias, 132, 148. Garden, 154-155, 190. Benefits of, 12, 13. Birds in, 188. Care of, 9-12, 160-162. Colonial, 167, 168. Colors, 147, 148. English and early American, 167. Italian, 167. Lilies and iris, 165, 191. Planning for, 228. Preparation of, 172, 195, *9*29. Uses of, 160, 189. [See also kinds of gardens -Flower, Fruit, etc.] Geranium, 129. Gladioli, 177, 183, 184. Color effects, 145, 146, 148. Roots, care of, 209. Godetias, 150. Golden glow, 148, 206, 222. Gooseberries, 79, 80, 223. Grapes, 77, 80. Varieties, 78. Wild, 97, 126. Grape vines, 62. Grass, 214, 215. Grubs, 72, 135. Gumbo soup, recipe for, 40-42.

Hardy perennials, 325-326.

Hedges, 18.

Vegetable garden, 19, 217.

[See also names of hedges—
Box, etc.]

Helianthus florus plenus, 132.

Helianthus multiflorus plenus,
see Sunflower.

Hemerocallis florham, see Day
lily (yellow).

Hemlock, 114, 123, 125.

Hemlock spruce, 18, 76, 217.

Herbs, 52-53.

moscheutos, 142.

Hickory tree, 104, 110.

Hollyhocks, 145.

Flowering, 129, 214.

Good garden flowers, 226.

Seeds, 151, 196.

Spraying necessary, 220-

Hibiscus, 153, 226.

221. Suitable for edges of shrubberies, 142.

Honey-locust, 217.
Honeysuckle, 118, 126, 215.
Horse chestnut, 107.
Hyacinths, 205, 216.
Hyacinths (water), 153.
Hyacinthus candicans, 145.
Hydrangeas, 126, 148.

Insectides, 220.
Iris, 148, 173, 184, 206, 226.
German, 144, 178, 208.
Japanese, see that title.

Insectides—
Varieties of, 174, 178.

Irish juniper, 116, 118.

Irish yew, 120, 121.

Italian and Colonial gardens, differences, 167.

Ivy, English, 187, 219.

Japanese, love of, for fruit trees, 57-58.

Japanese anemones, 149, 203, 224.

Whirlwind, 227.

[See Anemone.]

Japanese cedars, 120.

Japanese cypress, 120.

Japanese iris, 138, 144, 145, 174.

Beginning of blooming, 147, 178.

Flourishes in wet places,

153.
Separation of clumps, 208.
Japanese lily (wallacei), 175,
180.

Japanese quince, 125.
Japanese snowball, 126.
Japanese tree pæonies, 142.
Jerusalem artichoke, 142.
Junipers, 121.

Larch, 107, 110.

Larkspur, 129, 144, 148, 196, 202.

Laurel, 97, 218.

Mountain, 217.

Lavender, 52, 53. Lettuce, 38-39. Lilacs, 218. French, 195. Liatrie, 139. Lilies, 57. Care of in May, 225. Color effects, 148. Garden of lilies and iris, 165. Planting bulbs, 175. Soil best adapted for, 173. Varieties, 175, 184-185. Auratum lily, see that title. Brazilian, 177, 179. Madonna, 166, 178, 203. Melpomene, 182. Rubellum, 179, 185. Scarlet Turk's cap, 180. Tiger lilies, see that title. [See also names, Lilium, etc.] Lilium album, 145, 152, 182. Lilium auratum, see Auratum

Lilium Batemanni, 175, 180.

Lilium Canadense, 175, 179,

Lilium Candidum, see Ma-

Lilium Chalcedonicum, see

Scarlet Turk's cap.

donna lily.

Lilium excelsum, 175.

Lilium gigantium, 189.

Lilium Brownii, 175, 180, 185.

lily.

185.

Lilium Leichlinii rubellum. 175. Lilium longistorum, 180, 185. Lilium speciosum album, 175, 185. Lilium speciosum rubrum, 144, 175, 182, 185, 204. Lilium superbum, 175, 181, 185. Lily of the valley, 205. Lima beans, 28-29. Lime, salt and sulphur spray of U.S. Agricultural Department, 71. Linden, 107. Lobelia, see Cardinal flowers. Locust, 76, 107, 124. Lombardy poplar, 108-109. Lonicera alba, see Honeysuckle. "Loose strife," 153. Lotus, Egyptian, 186. Lupins, perennial, 138. Lychnie, 148, 146. Lysimachia, see Loose strife.

Lilium Krameri, 175, 179, 185.

Lilium Leichtlinii, 181.

Magnolia, 110, 217, 218.

Conspicua, 108.

Soulangiana, 108.

Maples, 103.

Mariesi, 226.

Marigolds, 148, 196.

Marshmallow, 142.

Melons, 50, 87, 88.

Microbe diseases in fruit trees, 64.

Monkshood, 129, 144, 149, 221, 225.

Montbretias, 224.

Mountain laurel, 217.

Mushrooms, 39-40, 60-61.

Musk melon, varieties of, 88.

Narcissus, 205.
Nasturtiums, 196.
Native trees, 94.
Nelumbium Speciosum, 171, 186.
Nitrate of soda, 26, 76.
Nitrates, 68.
Norway maple, 103.
Norway spruce, 123.
Nymphae (English), 186.
flava (English), 153.
odorata rosea, 153.
[See Water lilies.]

Oak, 103, 110, 124.

Oenothera lamarchiana, see

Evening primrose.

Okra, 40-42.

Onions, 42-44.

Oriental poppies, 142, 226.

Pæonies, 57, 142, 166.

Among currant bushes, 79.

Blooming at end of May,

147.

Pæonies-Early appearance in Spring, 214. Treatment of plants in Fall, 207-208, 224. Pansy, 197, 198. Paris green, spray of, 50, 64. Parsley, 44. Parsnips, 44. Paths, 231, 232. Peaches, 70-74, 80. Pears, 68, 80. Peas, 22, 44-47. Penstemon, 146, 148, 226. Digitalis, 136. Barbatus Torreyi, 135. Peppers, 47-48, 51. Perennials, 129-162. Compared with bedding-out plants, 129. Effect of cold on, 132. Hardy, 225-226. Increasing stock of, 131. Value of, 130, 131. Petunias, 129. Phlox, 129, 131, 148. Cocliquot, 146. Differences in color, 151. Division of roots, 206. Drummondi, 145, 149, 150. Early appearance of, 214. Satisfactory garden flowers, *2*26.

Pink, 144.

Pin oak, 103.

White, 145.

Pine trees, 76, 114, 199-193, 195. Plane tree, 110. Plant diseases, 292. Planting— Arrangement of borders, *9*37. Autumn planting, 903. Blackberries, 81. Catalpa, 105. Currants, 79. Deciduous trees, 99. Dogwood, 104. Evergreens, 112, 116. Grapes, 77-78. Iris, 175-176. Lilies, 175-176, 204. Raspberries, 82. Shrubs, 218. Strawberries, 83. Time of, 137, 139, 149, 151, 1*52*, 1*5*4, 177, 183, 186, 195, 197, 198, *2*01, *2*03, *9*05, *9*94, *9*95. Willows, 102. Plants— Affected by frost, 905. Covering for winter, 210. For edges of shrubberies, 142. Tying up, 160. With blue flowers, 138, 139. With white flowers, 136, 137,

138.

149.

With yellow flowers, 141.

Platycodon, 141, 144, 145, 226.
Plums, 74-75, 80.
Pollen, mixed by bees, 50.
Pond lilies, see Water lilies.
Pool, method of making, 168.
Poplars, 109, 110.
Poppies, 146, 147, 148, 196.
Oriental, 142, 326.
Privet hedges, 118.
Pruning, 218-219.
Grapes, 78.
Trees, 111.
Purple beech, 104.
Purple lilac, 125.

Quince, 75.
Japanese, 195.

Radishes, 48. Raspberries, 80, 82. Replanting, 206. Retinispora, 120, 123. Retinispora plumosa, see Japanese cypress. Squarrosa, 120, 131. Rhododendrons, 153, 182, 217, *2*18. Maximum, 97. Rhubarb, 22, 48-49, 53. Rockets, 145. Roses, 147, 149, 166, 203, 221, *2*25. Baroness Rothschild, 119. Climbing, 215, 222. Clotile soupert, 149. Climbing Rambler, 118, 148,

Jubilee, 149. Kaiserin Augusta Victoria, 119. La France, 149. Madame Plantier, 149. Margaret Dixon, 119. Mont Brutus, 203. Mrs. Lang, 149. Sweet briar, 97, 119. Soupert (pink), 149. Winchuriana, 118. Rudbeckia, see Golden glow. Sage, 52, 53. Salsify, 49. Salvias, 129, 146, 148, 151, 152, *2*00. San José scale, 71. Savory, 52. Scabiosa Caucasia, 144, 226. Scarlet Turk's cap, 175, 180. Scotch pine, 122. Seeds— Gathering, 196, 197. Mistakes in color, 150-151. Seed bed— Preparation of, 226.

Shearing time for certain

Siberian arbor vitae, 18, 217.

Shrubs, list of, 125, 126.

trees, 123.

Planting, 218.

Small fruits, 60.

Roses-

Ever-blooming, 216.

Hybrid perpetual, 119.

Snap dragon, 149. Snowball, Japanese, 126. Snowdrops, 205. Soil— Preparation of, 168-169, 171, 172, *2*30. for melons, 87. Sowing— Seed in hot-bed, 151. Time for, 215, 226, 227. [See also names of plants.] Speedwell, 139. Spinach, 22, 49-50. Spiraea, 226. Spiraea aruncus, 131. Spiraea palmata, 144, 146. Spiraea von Houttei, 147. Sprays— Bordeaux mixture, 37, 50, 64, 73, 75. Lime, salt water and sulphur, 71. Paris green, 50, 64. Tobacco water, 66. Spraying— Fruit trees, 76. Gooseberries, 79. Time for, 221-224. Spray machine, 220. Spring work, 213. Spruce trees, 120, 123. Squash, 50. Standard box, 219. Stocks, 149. Storage of plants, 121.

Trees, 93-126.

Strawberries, 80, 82-87. Varieties, 87. Stream or pond, use of, 152-153. Sugar maple, 103. Sulphur, use on lily bulbs, 174. Sumac, 97. Sunflowers, 142, 148, 196. Double, hardy, 226. Sweet corn, 35-37. Sweet peas, 196, 215. Sweet Sultan, 145, 149. Sweet William, 147, 196, 201, **22**6. Sycamore (plane tree), 110. Syringas, 147, 218. Grandiflora, 125.

Thuja pyramidalis, see Arbor vitae. Thuja Vervaeneana, see Arbor vitae. Thyme, 52. Tiger lilies, 177, 181, 185, 197. Tilia, see Linden. Tobacco water spray, 66. Tomatoes, 51, 53. Transplanting, 202. Deciduous trees, 94, 95. Evergreens, 113, 115. Poplars, 110. Seedlings, 201. Trees and shrubs, 97, 110. See also names of plants; Gardens.]

Cultivation of, 101.

Growth of, 101.

Lists of, 124.

Method of transportation, 96.

Trilliums, 142.

Tritomas, 132, 203, 224, 226.

Pfitzerii, 146, 150.

Trumpet creeper, 118, 215.

Tulips, 152, 205, 214, 216.

Tulip tree, 98, 110, 124.

Blooming, time for, 110.

Native, 110.

Turnips, 51-52.

Valerian, 129, 145, 224. Greek, 139, 144. Vegetable garden, 17-54. Drainage, 20. Economy of, 9, 53-54. Fertilization of, 20-21. Hedge for, 18-19. Laying out, 17-20. Planting of, 21-22. Preparation of soil, 31. Size of, 17. See also names of vegetables. Vegetable seeds, 53-54. Verbena venosa, 144. Veronica, 129, 139, 144, 226. Longifolia, see Speedwell. Viburnum plicatum, 118, 126. Vines, 97, 126, 215. Virginia creeper, 97, 126.

Vitis odorata, 126.

Wallacei, see Japanese lily.

Walnut tree, 104.

Walpole, Horace, his Essay on "Modern Gardening," 122.

Water Garden, see Stream or Pond.

Water hyacinths, 153.

Water lilies, 153, 186-187.

Watermelons, varieties of, 88.

Weeping birch, 104.

White birch, 104, 124.

White oak, 103.

White pine, 76, 114, 125.

Wild vines, 97.
Willow trees, 102, 153.
Winter, effect of, when unusually severe, 118.
Wistaria, 57, 118, 126.
Witch hazel, 97.

Yellows, 71. Yew, Irish, 120. Yuccas, 226.

Zinnias, 149, 150.



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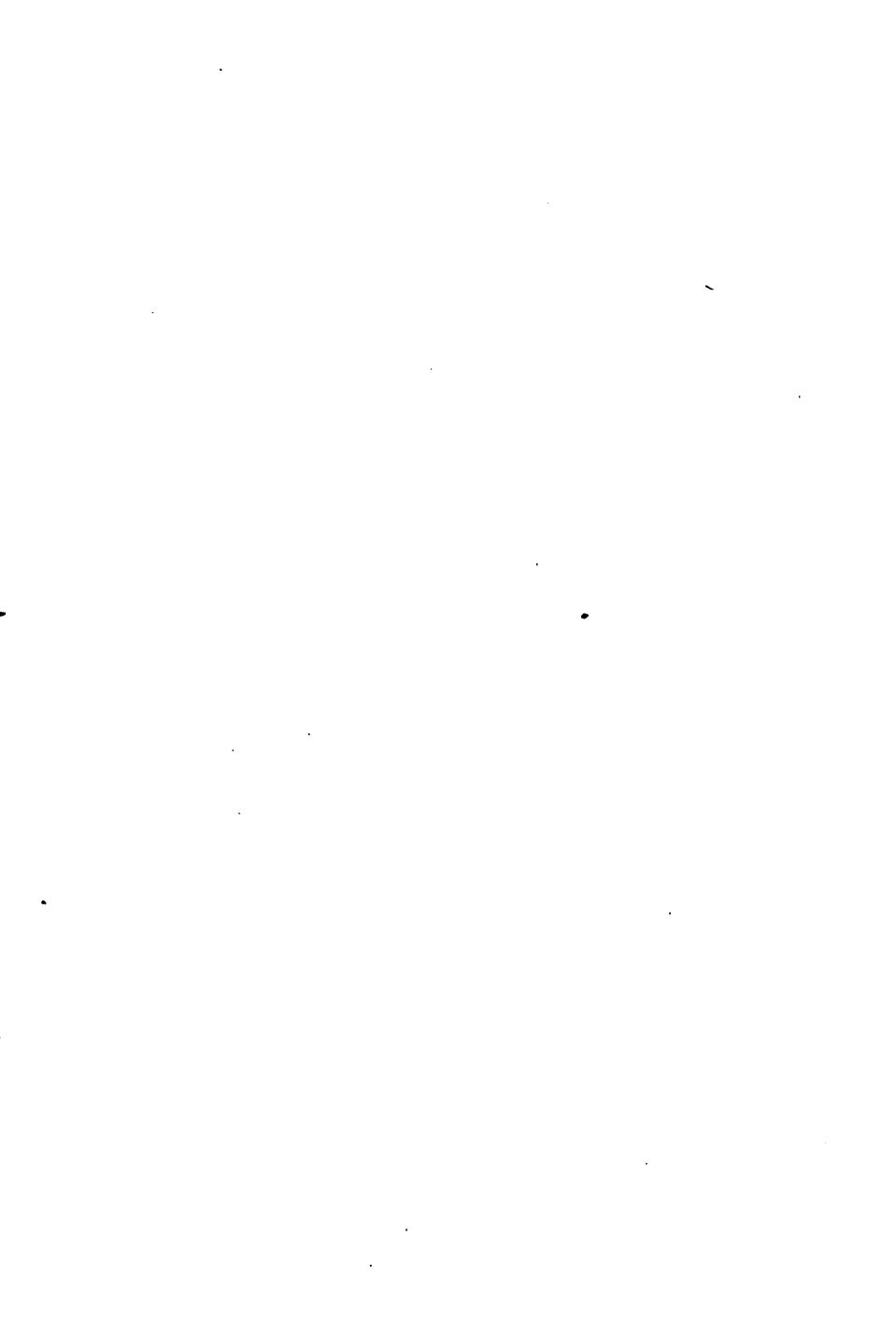
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